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AMIGA COMPUTING

Exclusive!
The only available commercial C/C++ compiler

June 1996 AMIGA COMPUTING
Requires hard drive, 3Mb ram, WB2.04
Be the first... STORM C
...to try out the Amiga's only commercial C/C++ compiler with this complete working demo

June 1996 AMIGA COMPUTING
Requires hard drive, 3Mb ram, WB2.04
STORM C
PLUS
AppCon, Lupe, ClassAction v3, NoFillNoDraw, ShellBench, UrouHack, Launcher, TaskBar

Sound advice

A concise guide to building the best Amiga sound studio

A new owner for the Amiga! See inside for exclusive details

PLUS 100

100 and counting!
the highs and lows of a hundred issues of Amiga Computing

- Speech Tools
- Modem round up
- CD32 expander
- Reader survey results

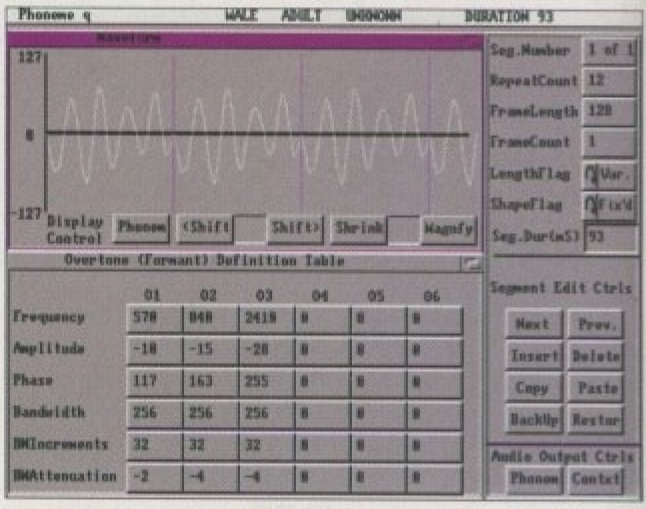
IDG MEDIA

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THE COVERDISKS



STORMC

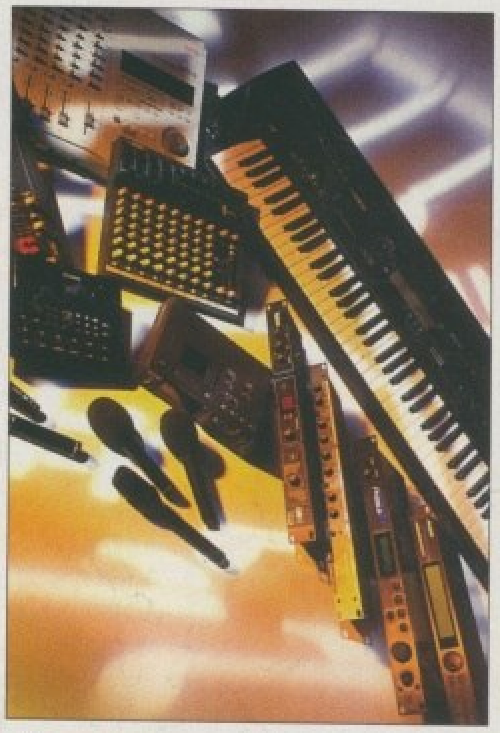
A 4Mb demo of the most advanced C/C++ compiler available for the Amiga. Every part of the compiler environment is fully functional and unrestricted so you can try out every part

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Vic Lennard, *muso extraordinaire, shows us how to get through all the pitfalls and prat falls of setting up your own recording studio*

REGULARS

AMIGA GUIDE

SUBSCRIPTIONS

For details of *Amiga Computing's* subscription turn to page 72



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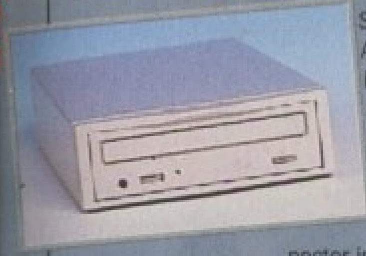


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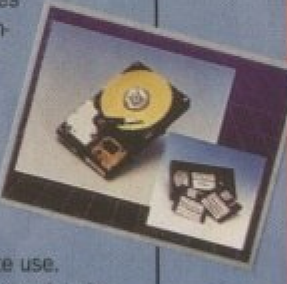
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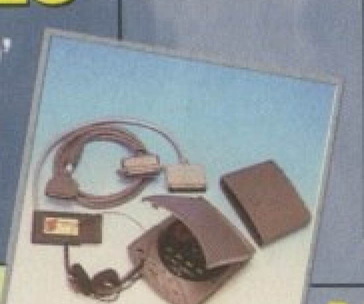
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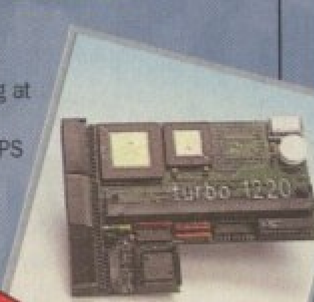
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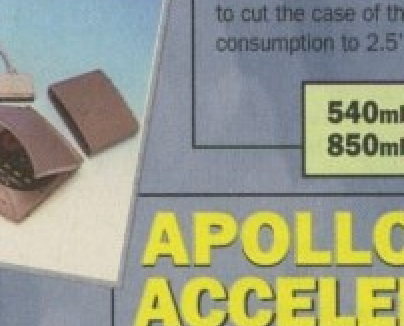
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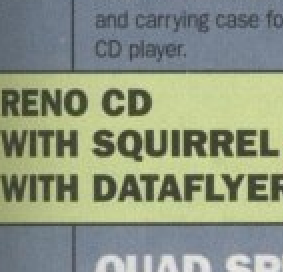


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amiga comment

100th issue

39,802

Some of you may be wondering about our ABC figures at the bottom of this page. How is it, in a world of declining Amiga use and with other magazine sales dropping by as much as 37 per cent, that we have managed to add about 47% to our readership figures just like that? The answer's simple really. Not only are we the best Amiga magazine on the market with exclusive reports brought to you before anyone else on things like the new Amiga, the stories in this issue about VisCorp buying Amiga Technologies, and NewTek's LightWave announcement and so on, we are also unique in the fact that we have two editions, one for Europe and one for the American market. The reason for our increased ABC is our loyal American and Canadian readers who rely on us to bring them the up-to-date news, reviews and features every month that we bring to the rest of the world.

THE TRUTH

But why do our readers like us? Well, as always you can rely on *Amiga Computing* to tell you the truth about a product. Just because the market is shrinking, it doesn't mean we will puff products against our better judgement, after all, it is you, our readers, to whom we are responsible and you won't trust a magazine's judgement if you buy a product we have said is perfect and it turns out to be a bit mince.

We also appeal to the more mature,

Double the readers **Double** the fun

serious Amiga owner. The kind of chap, as our survey reveals, that spends more time using 3D packages than playing games, that almost certainly has a hard drive and CD-ROM. This sort of person doens't enjoy being talked down to and we strive not to do that.

So here we are, poised on the brink of yet another chapter in the Amiga's chequered career, with VisCorp announcing that they will continue to support existing Amiga markets and develop new ones, pretty much the same stories we heard from Escom last May. We'll have to wait and see, as usual, but at least Don Gilbreath, one of the head honchos at VisCorp, was the designer of the CD32, so he has more pedigree than most of the current Amiga Technologies team. And this time there shouldn't be any of the delays in production of new machines, because, as we understand it, VisCorp are buying Amiga Technologies lock, stock and barrel, so they won't have to find a factory to produce Amigas which will need to be retooled and so on.

Perhaps VisCorp might may also attract back some of the real Commodore talent from their posts at other companies. Names like Dave Haynie, Mike Sinz, Peter Cherna et al. would be the ones best suited to breathing life back into our favourite machine in a



The very first issue of Amiga computing – note the the printing error on the masthead!

way that Amiga Technologies, through no particular fault of their own, have failed to do.

From reading IRC transcripts and attending conferences we know that there is still an awful lot of potential in the Amiga yet. Other platforms have shown the way forward perhaps, but there is still time for our machine to rise from the ashes of Commodore and Escom and renew itself, phoenix-like, as **the** machine for artists and multimedia types the world over. We know there is a market out there from our reader survey. We know you are now more clued up than ever, and we know that you are sticking with the Amiga because it is still the best machine for your current computing needs. Let's stick out the year and see the looks of disbelief surface on the faces of those fairweather Amiga owners who ditched everything they knew for a personality-free PC when VisCorp show a PowerAmiga at next year's CeBit show...

Ben Vost
Editor

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COMMERCIAL DIRECTOR Denise Wright
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Tel: 01625 878888, Fax: 01625 850652

EMail contacts:
Editorial edit@acomp.demon.co.uk
Advertising ads@acomp.demon.co.uk

CHAIRMAN Richard Hease
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We regret *Amiga Computing* cannot offer technical help on a personal basis either by telephone or in writing. All reader enquries should be submitted to the address in this panel for possible publication. *Amiga Computing is an independent publication and Amiga Technologies GmbH are not responsible for any of the articles in this issue or for any of the opinions expressed.*

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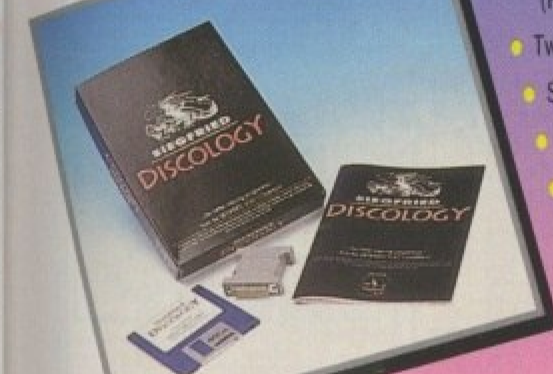
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news

By **Tina Hackett**

SHOCK ACQUISITION OF AMIGA TECHNOLOGIES BY VISCORP

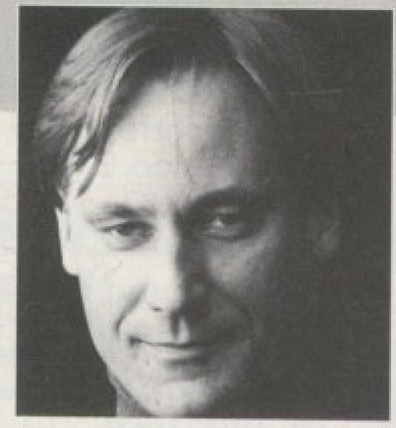
Just as we were going to press, Amiga Computing learnt of the shock announcement that Escom were to sell Amiga Technologies to VIScorp, developers of set-top box technology. A binding letter of understanding has been signed between the companies and it states that VIScorp would acquire Amiga Technologies, including the intellectual properties of the Commodore Business Machines. The transaction value is around $40 million – $10 million more than Escom bought Commodore for just over a year ago. The acquisition is subject to approval by both companies' board of directors and terms were not disclosed.

Gilles Bourdin, PR Manager for Amiga Technologies explained: "We have changed Mother companies because of the financial position of Escom. They were not in a position to hold Amiga Technologies and so we have a found a company that are more development-orientated - an Amiga-oriented company." When asked whether this is definite he commented: "We are quite sure this is going to happen." In January, Escom posted losses of 72 DM million and in March they revised that to 125 DM Million.



The Surfer Pack – ready at last?

Although primarily the acquisition is to give VIScorp full access to Amiga Technology for its set-top box, they have stated that support of the A1200 and A4000 will continue. Helmut Jost, now Chief Executive of Escom AG (see separate story) commented: "VIScorp anticipates the support of ongoing European sales of popular models such as the A4000T and the A1200 as well as the current developments and future releases of Amiga Technologies."



Manfred Schmitt (pictured) quits Escom board. He is replaced by ex-Commodore man, Helmut Jost

At the press conference at the World of Amiga show, they outlined their plans further. William Buck, VIScorp's CEO, commented on the rumoured offer of $40 million when Escom bought Amiga Technologies for only $10 million, "People are saying that these guys are crazy...remember though that money was spent subsequently. What we are buying is an asset. An asset that involves the inventory of finished goods, inventory of components which we can use to do what was being done but we can also use them to do what we want to do. Plus we're getting the intellectual properties. We think we're getting a great deal." VIScorp were present at the original auction for Commodore.

Petro Tyschtschenko offered: "This procedure is not affecting our day to day business, on-going projects, or my position as president of the company."

It was also stated that the distribution deal already in place with Escom when the original licensing agreement was signed was still in place. The preposed time scale for development is projected to be the end of 1996 for Universal Internet Television Interface for the US and the UK and the full set-top box with genlock and card-swipe for 1997. We'll bring you a full report of World of Amiga and more on the VIScorp deal next month.

ALL CHANGE AT ESCOM

Manfred Schmitt, Escom's CEO, has quit the board and has been replaced by Helmut Jost. The Supervisory Board accepted Schmitt's decision and he left his position on 31 March. However, he is still with the company in the role of consultant.

Jost has been head of IBM's German PC business since November but previous to that he was Managing Director of Commodore GmbH and Vice President International. In 1993 he accepted a post on the board of ESCOM AG where he was responsible for the Sales and Marketing functions and for the management of subsidiaries.

Amiga Computing **spoke to Gilles Bourdin, PR Manager for the company, about the recent events. He confirmed Schmitt had quit the Board but contrary to current rumours, he denied that Petro Tyschtschenko was also leaving. More news from Amiga Technologies this month is that the Internet pack is *finally* ready. According to Bourdin, the software and the modem are finished, and the delay was put down to the fact that each country needed a different modem and because the Telecom agreements varied between each country.**

PHOTOGENICS 2 TO LAUNCH

Almathera have revealed that their much anticipated Photogenics 2 package is about to be released. As a follow-up to their highly successful graphics package, it contains many new features – so much so that they have put it on CD-ROM. They have included Animation support to load and save standard IFF Anim files, powerful ARexx scripting where you can create macro scripts to automate conversion, build animations or interface with other Amiga software. This also allows Photogenics 2 to link directly to LightWave 3D.

A new full-screen Effects system has also been incorporated and provides many new effects that you can apply to a complete image or a masked area. You can write your own effects but those included are Radial Blur, Warp, 3D Rotate and 32-bit Fractal generator. Another new feature is their Virtual Buffers which means you can work with images larger than your memory will allow. Almathera claim this is 'unique' because it allows this without the speed loss usually associated with virtual memory programs. Hypertext On-line help is provided on the CD-ROM in HTML format, and a Web browser is also included. The price is expected to be around £99.95.

Almathera can be contacted on 0181-687 0040. or e-mail almathera@cix.compulink.co.uk

LIGHTWAVE 5 ON THE HORIZON

NewTek took the opportunity given to them at NAB to announce the latest version of LightWave. The best news is that Modeler is to receive a much needed update, with tools to bring it in line with the current range of state-of-the-art CGI programs. Modeler has been neglected in comparison to Layout, with only Metaform being of any note as an update in recent revisons.

LightWave 5 is set to change all that with several new ground-breaking features. Firstly, there is MetaNurbs, and LightWave is the first product with this feature. It breaks the barrier between spline-based modelling and traditional polygons by automating the transition between the two. Another feature much loved by 3D Studio users is MetaBalls which will be included directly in Modeller (rather than having to be a plug-in, as in 3D Studio). MetaBalls is a system that is fairly hard to explain in a few words, but allows for the kind of 'globby' effects as seen in the Organics advert on TV. In addition to over 100 new features for both Layout and Modeler, LightWave 5 also promises full integration with OpenGL a graphics system for realtime shaded views in Layout, and, presumably (they didn't say on the press release), Modeler. But where will that leave Amiga owners who won't have access to OpenGL? NewTek don't say, but the PC version will be the first available, with Alpha, MIPS and SGI to follow. The pricing will be $1495 for the full version, and upgrades will cost $495 from any previous version.



ZIP IT UP

Iomega have announced that shipment of their Zip Drives has passed the One Million mark. In an announcement at the CeBIT trade show in Hannover, they revealed that they have shipped more than one million Zip drives in less than a year and also shipped nearly ten million Zip disks.



The Iomega Zip Drive has shipped over one million units

RAM IT HOME

Trade paper CTW has reported that games companies are being targeted by 'RAM raiders'. Computer thieves are breaking into the companies and stealing thousands of pounds worth of memory boards and other equipment. Codemasters are the latest victim of the robberies and want other companies to take note and put up protection against the thieves.

LIVE '96 AND KICKING

The Consumer Electronics Show is all set to happen at Earls Court, London, in September. Scheduled for the 25-29 of the month, companies such as Sony, Demon Internet and Mitsubishi have already signed up. The show also plays host to the Battle of the Bands contest as well as the latest in games, computers, Internet, audio and Television.

LIVE '96
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HOPE FOR LEISURESOFT

Wholesalers Leisuresoft hope to see off current difficulties by going into administration, it was announced recently. The company are reported to be having financial troubles but according to the joint administrator, Bob Bailey, they are giving out a 'business as usual' message. Trade paper CTW said that 12 staff have been made redundant, leaving a workforce of about 60. The administrator commented that people had expressed an interest in buying the company but they had no intention of putting it up for sale.

Leisuresoft are one of only two Amiga distributors, the other being SDL. SDL also fell into problems back in October and went into Administration, to be bought out only four weeks later by Anglo Corporation. No-one from Leisuresoft was able to comment at the time of going to press what implications this would have for the future of their Amiga line

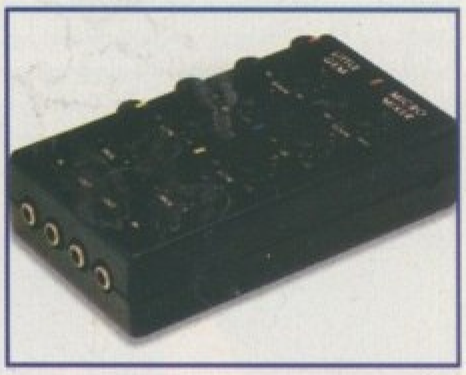
news snippets

PREMIUM PRINT

Kodak have announced a new range of Photographic Paper and Transparency Film designed to get the best results from desktop Ink Jet printers. They are offering superior grades of photographic-quality A4 paper and transparency film which is ideal for producing high quality print-outs in vivid colour or black and white. They will enhance the quality of documents or overheads by making accurate graphics, solid colour saturation and crisp text possible.

REAL GEMS

Gillet Multimedia, the company behind the 'Little Gem' Desktop Micro Audio Mixer and EQ Unit, have announced that due to the success of the unit they have reduced the price. Originally retailing at £69.95, they have knocked this down to £49.95. Launched last summer, the unit has sold in its hundreds all around the world – it even earned itself a 9 out of 10 score from Amiga Computing. For more information contact Gillett Multimedia on 01353 669203.



TERMINUS TERMINATED

According to rumours circulating on the Amiga Directory, the modem terminal program, Terminus is no longer being developed. Apparently the author, Jack Radigan is considering a port to OS/2 but is waiting to see if the BeBox becomes a player.

JOIN THE CLUB

A new Amiga computer club has opened in Lancashire at St Thomas The Martyr School Hall, Highgate Road, UpHolland, Wigan. The club meetings are held every Sunday at 1pm, admission is £1.50, and members can benefit from free advice, free software and a huge Public Domain library totalling 18Mb of software. Refreshments are also available. If you're interested and can actually get out of bed on a Sunday before 1pm, take along your Amiga and get computing.

Hugh Poynton

GET YOUR VIRTUAL MOTOR RUNNING...

A new solution has emerged in Japan to the age old problem of how to train motorbike riders without actually exposing them to too much danger on the open road.

Virtuality KK, a subsidiary of Virtuality Group plc, have announced that they have completed the development of a motorbike simulator for use in driving schools in Japan. The completion of the simulator has coincided with the Japanese Police's decision to revise the traffic law so that simulators will have to be used as part of the teaching programme, particularly for candidates of bikes over 400cc.

Virtuality KK expect to make massive profits on the motorbike simulator as the market is estimated to be about US $50 million and the only other company known to be working on a bike simulator is Honda The real advantage of the simulator is the fact that it can allow student drivers to drive in hazardous conditions without fear of injury. Dangers such as difficult weather conditions, busy roads, and pedestrians walking out in front of them will enable them to experience the worst they could expect to come across on the open road, and to learn from their experiences.

Rather than use a flat screen, the simulator makes use of a 'Visette' Head Mounted Display through which the student sees detailed real time 3D graphics. According to Mr Terushisa Tajima, HMD is used because "...it is the only way to ensure that students turn their heads left and right before they make a turn at an intersection."

Hugh Poynton

AND I'D LIKE TO THANK...

The Industry show, ECTS, has rapidly approached and with it came the famous awards night to celebrate the best and the rest in the industry. The show was hosted by BBC's Emma Forbes (Live and Kicking) and GamesMaster's Dominik Diamond, and if that's not enough excitement for the evening, there was also a performance by the Oasis tribute band, No Way Sis. Nominations included Worms, Destruction Derby and Wipeout for the Most Original Title. Command and Conquer, Descent, Worms (again), Screamer, EF2000 and NHL Hockey '96 have been nominated for Computer game of the Year. We'll keep you posted...



DESKTOP DREAMS

This Spring saw the release of E.M. Computer Graphic's new professional Desktop Video CD for the Amiga, the EMC Phase4. The package is aimed at anybody who uses their Amiga for video, presentation or graphics work.

EMC state that the CD contains a large number of fonts, music modules and sound samples that will be suitable for commercial presentations. As well as this, the CD contains 300 megabytes of professionally designed backgrounds covering such diverse subjects as weddings and technology, and a wide variety of backgrounds are available too such as marble, fabric and stone. The CD also contains countdown animations, on screen timers, multimedia buttons and testcards so that very professional looking presentations can be created.

The EMC Phase4 Desktop Video Dreams CD is available for £39.99 + p&p. Contact them on 01255 431389

Hugh Poynton

HAMA SANDWICH

Hama have announced that they have taken over the distribution of Videonics. This gives them the largest range of Post Production Product available from any UK supplier.

news from the net

WHO'S EATEN ALL THE CAKES?

CompuServe, the world's largest On-line Services and Internet Access provider, announced on 2 April that Steven P Stanbrook, formerly President of the Sara Lee Corporation HQ in Chicago, was to be appointed to their newly created position of President International.

Stanbrook will implement CompuServe's global expansion campaign, providing strategic direction and general management of international offices.

Hugh Poynton

HACKED OFF

An Argentine computer hacker found himself in deep trouble recently when he was overheard bragging to his girlfriend that he had broken into US military computers and other top security systems. A judge authorised Julio Ardita's telephone to be bugged and he was heard boasting how he had used the Internet to break into the systems.

Ardita also hacked into the Argentine telephone company, Telecom Argentina, and they suspect someone had given him the password – a combination which would have taken years to uncover. Ardita was allowed free on parole but could face up to three years if found guilty.

WORLDWIDE HONOURS

The creator of the World Wide Web, Tim Berners-Lee, is to be given an honorary degree from the University of Southampton. He will receive the degree of Doctor of Science (DSc) this summer.

Berners-Lee created the Web back in 1989 when he was working at the European Particle Physics Laboratory, CERN. He now directs the W3 Consortium from the Massachusetts Institute of Technology.

BROADCAST INDIAN '96

The Broadcast India '96 Exhibition and Symposium will be held from the 24-26 October at the World Trade Centre, Bombay. The exhibition covers all aspects of TV, Radio, Video, Audio, Film, Cable, Satellite, Computer Graphics, Multi Media, Transmission, and many other associated technologies.

India's broadcasting industry is flourishing after the privatisation of channels and the arrival of the international networks in India. With 80 channels expected to exist in India within the next year, it is thought that the Indian broadcasting industry will require over 1,000,000 hours of TV programmes per year. Such a huge boom in the broadcasting business means India currently needs 50 times more hardware and technology for its existing and new facilities, making one of the largest markets for broadcast hardware and also computer software.

Anybody interested should contact Saicom Trade Fairs & Exhibitions PVT. Ltd at phone: (91-92) 2151396, 2152721 or fax: (91-92) 2151269

Hugh Poynton

Nova acquire Aladdin 4D

USA news

by **Jason Compton**

It used to be that there were two major rendering packages on the Amiga – Impulse's Imagine on the lower end, and NewTek's LightWave on the upper end. Contenders have come and gone. About a year ago, Maxon's Cinema4D got an English translation, and its low cost and high power set the market astir. It's just got quite a bit hotter.

Nova Design, renown the world over for their high-end image processor ImageFX, have acquired Aladdin 4D from Adspec Programming. While Aladdin 4D has never actually gone out of production, its interface and features are currently going through a major overhaul by Nova Design programmers. Previous to Nova's acquisition, Aladdin 4D was often noted for powerful animation control and its ability to create realistic vapors, clouds, and gasses. An old competitor has returned to stake its claim on the high-end, low-cost rendering market.

Nova Design intend to release Aladdin 4D 5.0 in the third quarter of 1996, but a price has not yet been determined. For more information on Nova Design, ImageFX, or Aladdin 4D, you can reach Nova Design by phone on (001) 804-282-5868, by fax on (001) 804-282-3768, by e-mail at kermit@cup.portal.com, or on the Web at http://www.portal.com/~kermit/



Creating realistic images like this one is easy with Aladdin 4D. Will it be even better under Nova Design?

Internet for the North

Internet Direct and Istar Networks are offering a special Internet access package to Amiga users, complete with one month's free access. With the Amiga Surfer and SurfWare packages still unreleased in North America, this marks the first time a nationwide effort has been made to provide a one-stop Internet setup to Amiga users.

The package includes the demo version of AmiTCP 4.0, with companion autodialer, AMosaic Web browser, GUI-FTP client, and telnet client. !Direct and Inforamp will provide regular updates of the software to their customers as it becomes available. The package is currently in stock at Amiga dealers throughout Canada, and the iSTAR and Internet Direct networks have dozens of dialups included in the offer covering Canada's major metropolitan areas. For more information call (001) 905-723-0930.

Open again for business

The Wonder Computers chain of Amiga retail stores went into bankruptcy in late January, but Wonder CEO, Mark Habinski, publicly promised the Amiga community he would try his hardest to re-acquire as much of Wonder as possible and re-establish it as a new, debt-free corporation. This has been done.

On 1 May, Wonder Computers International opened their first store and corporate headquarters in Ottawa, Canada. Habinski's bids for the two largest Wonder locations, as well as for the physical capital of the corporate headquarters and the trademarks and rights to the Wonder name, were accepted by the bankruptcy trustees. Keynes Emeruwa, former Marketing Manager of WCi, said of the return of Wonder: "We are more excited now than ever before. We're looking forward to working with and helping the entire Amiga community. This resurrection is a testament to the success of the Amiga."

Wonder's initial two locations will be the home store and corporate headquarters in Ottawa, with a sales office in Vancouver, British Columbia, and expansion is planned for the city of Toronto as soon as possible. In addition, two western Wonder stores whose assets were acquired by a former Wonder manager may become affiliated with the new company. While the planned World of Amiga Vancouver in June will not be possible, Habinski has indicated that World of Amiga Toronto in December will still be held, and that a date will be announced soon.

New setup for WCS

World Construction Set, the package that interprets geographical survey DEM files into realistic landscapes, has reached a new version. Questar Productions have decided to put out a 'pre-release' version, without all the features fully implemented and fixed. The pre-release will be less expensive than the full package, and all pre-release purchasers will be entitled to a free upgrade upon its completion.

While Questar produce WCS for other platforms, the price of WCS on the Amiga will be lower than their versions of WCS 2. WCS V2 allows timeline editing of animations, a configurable MUI interface, better waves and water control, multiple DEM files in a single project, and compatibility with LightWave through an import filter. WCS V2 Pre-release is shipping now, and dealer and distributor inquiries are invited.

Questar Productions can be reached on (001) 303-659-4028, wcsinfo@arcticus .burner.com through e-mail, and http:// www.dimensional.com/~questar on the Web.

Bandits on the Web

Dan Barrett, better known to Amiga users for his BLAZEMONGER humour series, has turned from biting sarcasm to somewhat more serious subject matter. His new book from O'Reilly and Associates, entitled 'Bandits on the Information Superhighway', deals with Internet risks, scams, and hoaxes. Barrett deals with security issues, junk e-mail, and other concerns, and works to debunk the myth that the Net is strictly a playground for paedophiles and perverts.

'Bandits' can be found at many bookstores, or can be ordered under ISBN 1-56592-156-9. For more information, you can reach O'Reilly and Associates at (001) 707-829-0515, or read a chapter of the book at http://www.ora.com/info/bandits/

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The coverdisks

Its huge, a 4Mb demo of StormC. A complete C/C++ development environment for the Amiga

Extracting CoverDisk files

Before you even think of putting the coverdisks anywhere near your computer you should make sure you write protect them by moving the black tab in the top corner of the disk, so you can see through the hole. Doing this makes sure you cannot damage your disks in anyway. There is no reason why the coverdisks need to be written to, so even if the computer asks you to write enable the disks, don't do it.

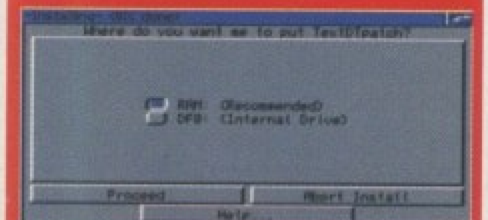
To extract any single archive, simply double-click its icon and follow the on-screen instructions. If you want to quickly extract the program to RAM, select the NOVICE level on the welcome screen and press proceed once on the current screen, and then again on the next. The program can then be found in your RAM disk. Normally most programs need further installing, so read the documents on how to do this.

Hard Drive users

Hard drive users do not have to boot with the first disk, but you must make sure you have the Amiga's *Installer* program in your C drawer. To make sure your hard drive has the correct files in place, double-click on the SetupHD icon. This will check if you have the Installer program and if not will copy it across – do not worry as it will not write over any existing files.

All you hard drive owners will find MultiExtract very useful. It is a separate method of extracting the coverdisk files and allows you to extract a number of files in one go, to your hard disk or RAM.

When you run MultiExtract you will be presented with a number of check boxes, each representing one of the programs on that coverdisk. Just de-select all the programs you do not want extracting and then press proceed. All the selected programs can now miraculously be found in the selected destination.



This is MultiExtract for all you sensible people with hard drives

DISK 1

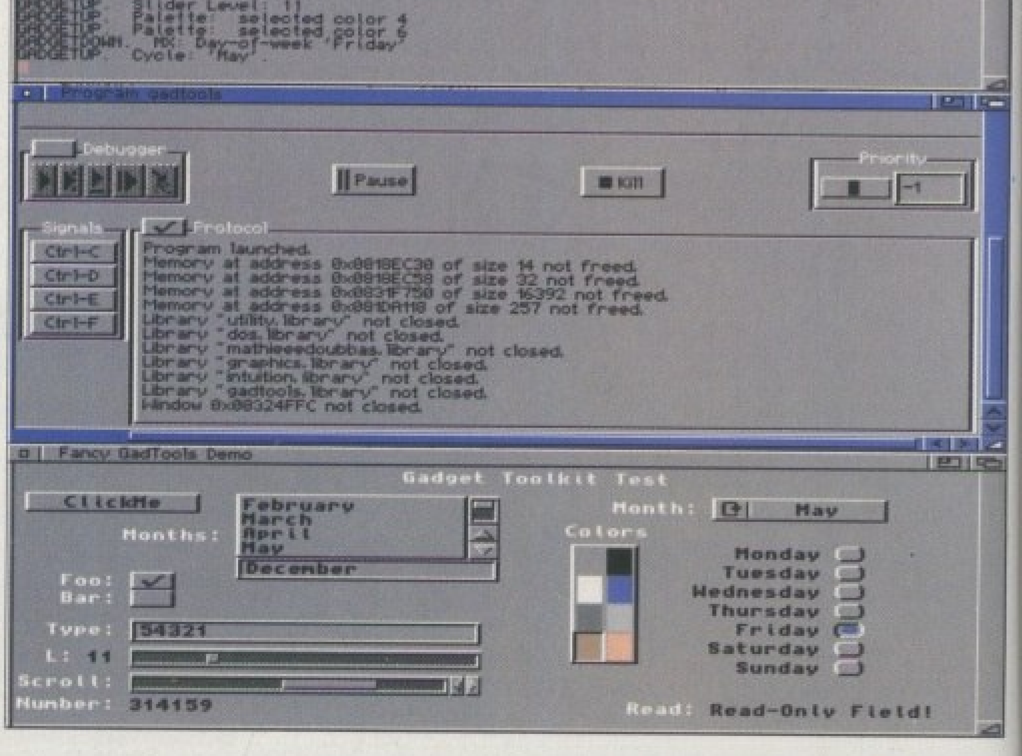


Installing StormC

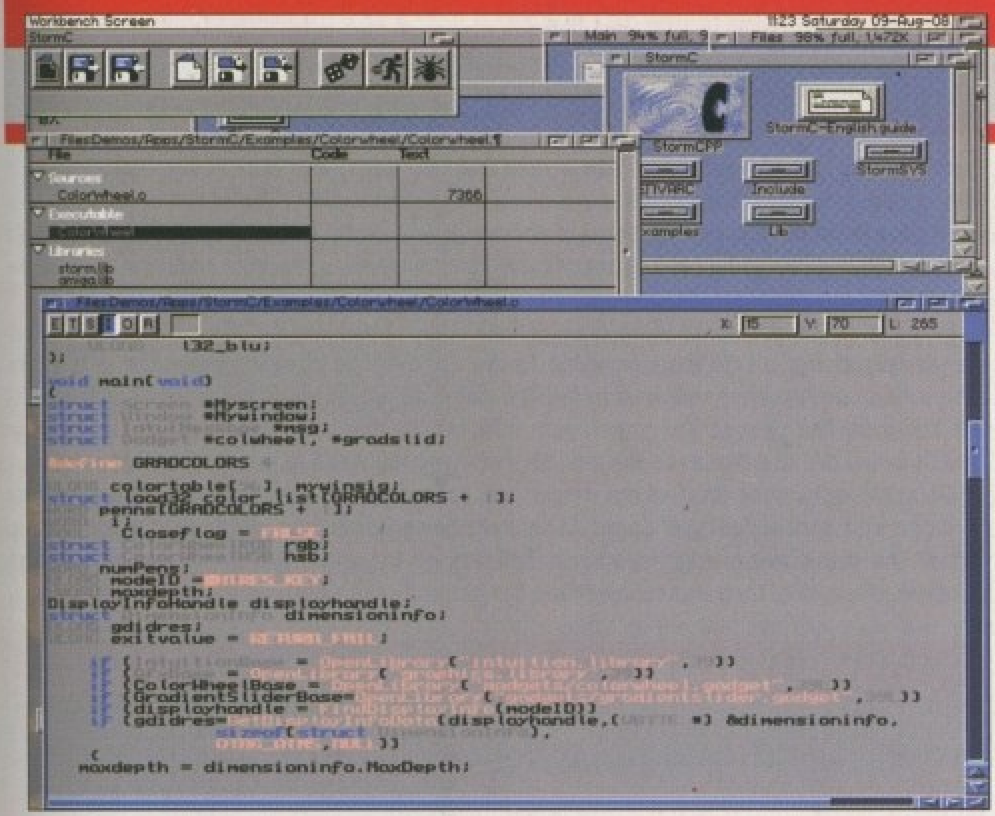
StormC is not a small program as it gives the programmer a complete C/C++ developments environment. The total amount of hard drive space required is almost 4Mb. Installation is a matter of a few mouse clicks on the installer icon then all you need to do is say where you want StormC to be placed. The archive is so big we had to spread it over the two coverdisks, so half-way through installation you will be asked to insert the second disk. Once done, StormC is ready to run.

With the StormC demo there are two example programs that you can compile and run. To load them, click on the open project icon and go to the Examples directory. There are two projects already setup for you. One creates a demo Gadtool interface and the other makes use of the Amiga's BOOPSI colour wheel.

Select one and once it is loaded click on the run icon to compile and run the program. This will show you StormC running through its compile and link sequence, and then the debugger that works alongside the compiled program.



StormC's advanced debugger allows you to keep track of what your programs are doing



StormC

Author: Haage & Partner Computer
Workbench 2.04, 4Mb Hard Drive Space

The program editor automatically highlights C keywords and commands

With the end of development for SAS C a huge gap was left in the Amiga market. There was no commercial C compiler, and as SAS C never gain object-oriented extensions, this left the Amiga lacking a very important product. StormC looks like it can very easily fill SAS C's boots.

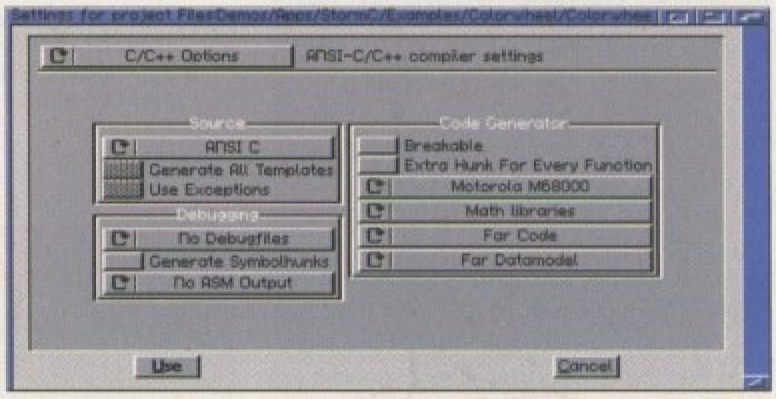
The heart of StormC is the project manager, from which all other components are invoked and are provided with data. The project manager is not simply a better MAKE, but the administrator for all your program modules such as sources, object libraries, documentation, ARexx scripts, pictures and resources, along with compiler, editor and project options.

A further component of the system is the editor, with its ability to emphasise keywords and syntax characteristics colourfully. With this text colouring you can read your program much easier because you will be better able to see its structure. Apart from this it also helps you avoid errors while editing your sources. As soon as a keyword or an Amiga function is entered, the word is marked colourfully and you know you completed it correctly.

Next is the extraordinary debugger, extraordinary because it makes no difference whether the editor or the debugger is running. The debugger uses the abilities of the editor which means that the debugger uses the editor window for its output. Therefore, you can watch the source, set breakpoints, look for functions and variables and so on with the ease of using the editor. The structuring and the colouring of the source are helping you to do your debugging job.

The most important part of our development system is the compiler. Object-oriented programming is all the rage. Hardly any software developer programs in ANSI C anymore, at least that's the impression I get. The truth, however, is quite the opposite. While many programmers use C++ compilers, these are suited just as well for translating ANSI C code. StormC is a compiler for both parties. The traditional programmers will use our very fast and compatible ANSI C compiler, and they can switch to object-oriented programming with C++ at any time, completely or partially. StormC is their tool for the future. The others will use the outstanding C++ compiler. StormC implements C++ according to the design by Bjarne Stroustrup and it supports the extended AT&T 3.0 standard. The compiler generates code for all Motorola 680x0 CPUs including the 68060.

StormC is suitable for all programming projects, be they administrative, graphics, music or game programs. For all these projects StormC should be your first choice. The existing preview version of StormC helps you with the decision for your future compiler system.



The compiler even allows you to produce 060-specific code

Faulty disks

If you should find your Amiga Computing CoverDisk damaged or faulty, please return it to:

TIB Plc, TIB House, 11 Edward Street, Bradford, W. Yorks BD4 7BH.

Please allow 28 days for delivery

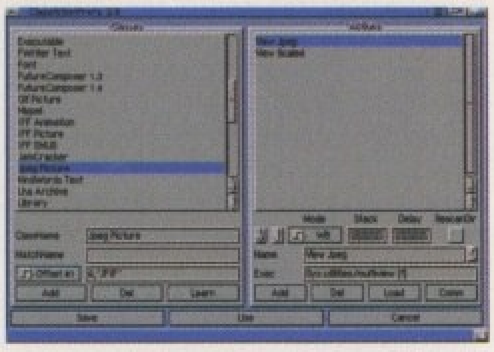
To use the following program you need to have the Magic User Interface v3 installed on your system. Without it you will not be able to run any MUI program. MUI is available from any good PD house.

DISK 2



ClassAction v3

Author: Gasmi Salim
Workbench 2.04 Magic User Interface v3.x



For version 3 ClassAction has gone MUI mad

This is a great program that makes your life a lot easier. When you have a hard drive you end up with all manner of files dotted around, and if you had to have every program necessary to display all these different files you would not have very much room on your Workbench.

ClassAction lets you define a whole host of different file types such as GIF, Jpeg, ILBM or any other file you like and specify the program that should display it, leaving you with a single AppIcon on your Workbench. If you want to display a picture then you only have to drop the picture file into the AppIcon and the corresponding picture viewer will be run.

Once you have installed ClassAction using the provided installer you can run the preference program. As standard there are a good number of predefined file types, but you will have to change the pre-set programs to your own.

ClassAction has a number of handy features that make it very good to use. Firstly, for each file type you define you can have many different actions, so when you drop a file onto the AppIcon you get a list of the options you specified. Therefore, for Jpegs you could have normal and grey preview options if you use Fastview.

When it comes to adding new file types, ClassAction gives you a few options, the first is that you can simply define a file name extension, such as #?.jpg to define a Jpeg file. This is not particularly good because any Jpeg file that does not end in .jpg will not be recognised by ClassAction.

The second way is to define the internal structure of a Jpeg file. If you want to know every Jpeg file has the word JFIF six bytes into the file you enter 6,'JFIF' which tells ClassAction to look at the 6th byte in a file and if it matches JFIF then it is a Jpeg. If you do not fancy doing this yourself then ClassAction has the ability to work this out itself. If you pass it a few files of the same type it can analyse them, see what is the same in all of them, and work out how to recognise them in the future.

Easy Assign

Author: Piotr Cienak
Workbench 2.04

If you are the sort of person that likes a neat and tidy hard drive with as few extra icons and files dotted around as possible then this could be of use to you. If you install a game on your hard drive,9 out of 10 times you have to set up some assigns – usually the name of the disks you are copying the game off. This means you have to create a separate script file to do all the assigns and run the program.

Easy Assign lets you make these assigns from the icon you run the game from which allows you to keep things a little more in order. To use Easy Assign, copy it to your C directory from where it can be run. Next you need to find the game or program you want Easy Assign to work on. You must first change the game's icon from a Tool to a Project type of icon – if you use SwazInfo you can use that to do the job, otherwise you will need to use the IconEdit program.

Once you have done this, set the default tool to EasyAssign, then for each assign you want to make add a new Tooltype called ASSIGN=<device name> for every assign you want to make. You can also run other programs beforehand using the PROG=<name of program> Tooltype. Once all of these have been done the game the icon belongs to will be run.

Lupe

Author: Frank Toepper
Workbench 2.04

In one small sentence, Lupe magnifies an area of the screen – that is about the size of it. As far as magnifying programs go, Lupe does about everything you need. You can open it on any screen from its menu, and a handy scroll bar lets you easily change the magnification level. As far as speed is concerned, it is pretty quick and there is a specific 020 optimised version so you can squeeze every last CPU cycle out of it.



Its all going surreal

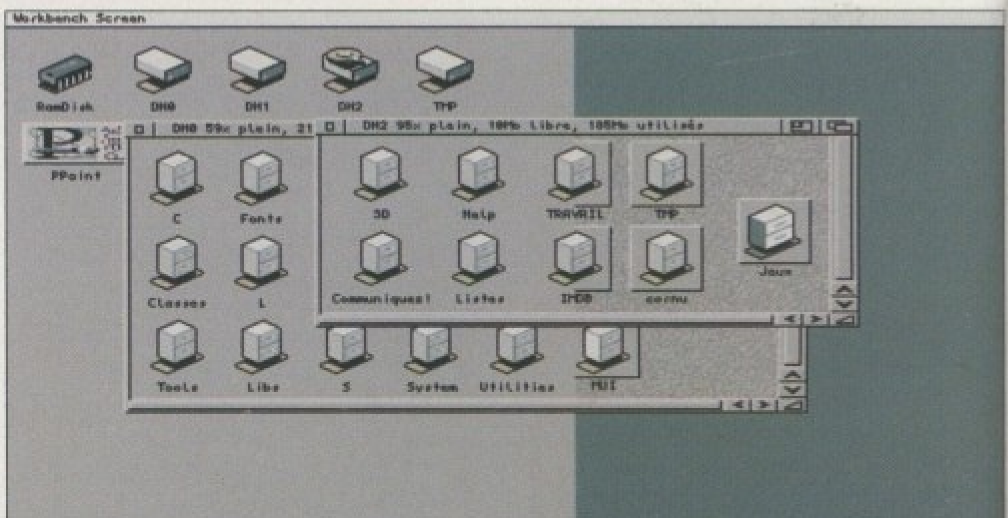
No Fill No Draw

Author: Kamel Biskri
Workbench 2.04

These are two tiny programs that change the way Workbench displays its icons. Normally, icons have to have a bevel box around them and they have to be opaque, so you cannot see through them. These two programs, No Fill and No Draw, allow you to stop your Amiga doing both these things and can make your icons look much more natural without the forced bevel. If you want a bevel around an icon you can draw it yourself.

You can either run both the programs by adding them to your startup-sequence or, much easier, drop them into the WBStartUp drawer. The NoFill command can cause problems with normal icons as certain colours become see through and the icons can look speckled. The NoFill program is of greatest use to people who use NewIcons, in which case these programs can make your icons look much better.

See-through and borderless icons can look so much better



The coverdisks

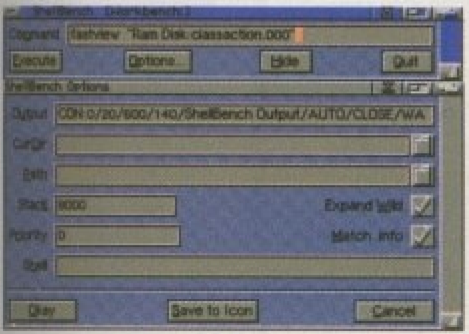
To use the following program you need to have the ***Magic User Interface v3.2*** *installed on your system. Without it you will not be able to run any MUI program. MUI is available from any good PD house.*

ShellBench

Author: Nick Christie
Workbench 2.04 Magic User Interface v3.x

What is the quickest way to run a program apart from double-clicking on its icon? That's right, use Workbench's execute function. If you hit right Amiga E a small requester pops up into which you can type the name of the program you want to run. There are problems with this though. Firstly, it completely locks the Workbench which is not good, and secondly, you have to type the entire path of the program in.

ShellBench gives you a completely separate program that runs any program separately from Workbench. It has a history buffer, like the normal Amiga Shell, that you can scroll through using the up and down cursor keys. It will also do filename completion, so if you type part of a file name and then hit Tab, ShellBench does its best to complete the name. If it comes up with more than one answer you can cycle through them all by pressing Tab again. Hit shift and help and you get a file requester allowing you to add a program or file this way. You can even assign your favourite programs to the function keys for quick retrieval.



It may look simple but ShellBench is a excellent replacement for the execute command

TaskBar v5.2

Author: Robert Ennals
Workbench 2.04

Windows 95 fever is sweeping the nation, and this programmer took a shine to the task bar that you get on the bottom of the screen in Windows 95.

His Amiga version performs the same functions, giving you a quick and easy way to jump to different programs and windows by clicking on the buttons that appear on the task bar.

There is a text-based preference file that comes with TaskBar and this needs to be copied into the ENVARC drawer in the preference drawer. This preference file lets you change a number of points about how TaskBar works. You can vary the number of buttons and the width of the bar, but the main use is to allow you to add programs to its launch window. If you click on the Start button this pops up a menu that lists programs that TaskBar can launch, and these are defined in the preference file.



TaskBar gives you short cuts to both running programs and accessing them

Appcon

Author: Stephan Fuhrman
Workbench 2.04

It really is amazing how many good ideas made it into Workbench 2 and even more into version 3, yet so few are used in the standard Amiga programs that you get with your Amiga. Stuff like AppIcons and AppWindows that allow you to drop icons into program's windows.

How many times have you been using the shell on the Workbench and the file name that you are about to type in is there on the screen, but there is simply no way to get the file name into the shell without having to type the complete path in.

Until now, that is. Appcon turns your shell window into an AppWindow that you can drop icons and drawers into. If you copy the program into your C directory when you type *AppCon* you will now be able to drop icons into the window and its name will appear.

You will probably be best editing the *Shell-Startup* found in the S directory which is run by every shell before starting, and any commands you place in there will be run before hand.

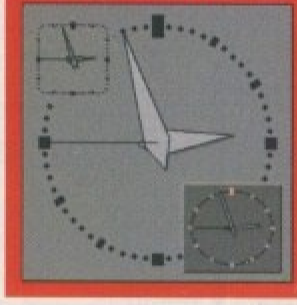
TolleUhr

Author: Gunther Nikl
Workbench 3.0

What time is it? I don't know. Well you should, and with TolleUhr you will have no excuses. If you imagine an analogue clock, much better looking than any digital one, that you can resize, change the shape of the hands, face and even the colours that everything is drawn in then that is TolleUhr.

There is no installer with TolleUhr so you will have to copy everything across by hand, but there is not very much involved in this. Most importantly, you have to rename and copy the correct tolleuhr.library into your Libs drawer. If you only have an 68000 processor, the one in the A500, then get rid of *.000* and copy it across into your Libs drawer.

All the options are changed through TolleUhr's menus – this is not the easiest way to go about things but it works and you have to do it as the initial settings are horrible. When you have got everything as you want, you can move and resize the clock wherever you like and then save your options.



Bigger, smaller, fatter, thinner. Whichever way you want, TolleUhr can do it

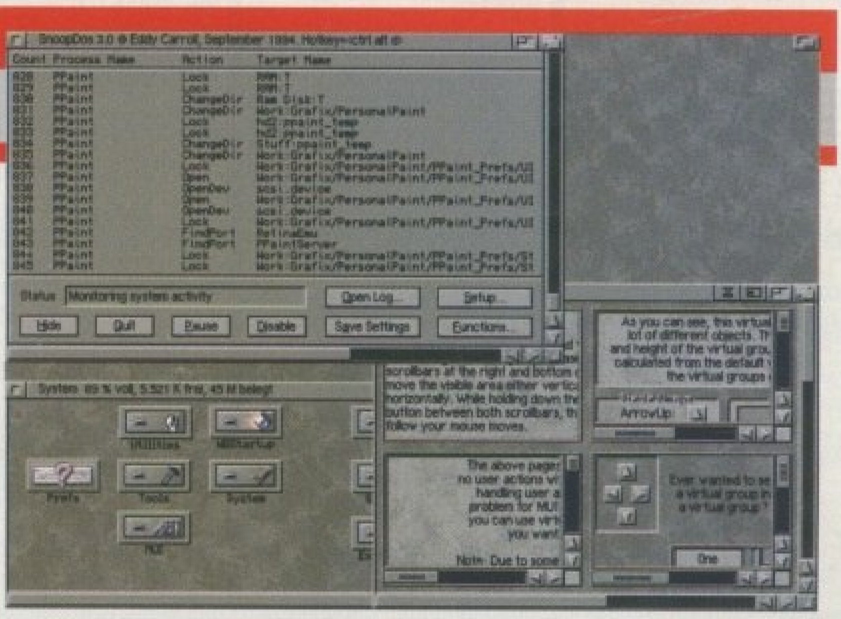
UrouHack v1.7

Author: Tinic Urou
Workbench 2.04

I originally put this on the coverdisk out of curiosity. It's a little hack that changes the look of Gadtool buttons which is great but is not really of any use is it? Well, this latest version is just getting plain silly.

Instead of just giving you the choice a few different looking system gadgets, which would be fair enough, this version now lets you create your own system gadgets. If you do not like the ones that come with UrouHack, fire up your copy of DPaint and draw your own. Using good old Datatypes, UrouHack can accept IFF images and replace the normal window gadgets, check marks and radio buttons with these. Finally, UrouHack comes with a full installer that will install the program and all UrouHack's files, and also allows you to change your preferences afterwards. Before you use the installer you need to remove your old UrouHack line from your Startup-Sequence – if you already have an older version.

You should remember that UrouHack is a hack and does not work perfectly with all programs. The main problem is with it changing the size of window borders. This either looks bad, or at worst it will crash your machine, as it does with StormC. Therefore, I wqould recommend you try that out first before you install UrouHack.



I don't like those gadgets, so I will change them. Hey mister that there's crazy talk. Not with UrouHack

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3D Objects Volume 1



CODE: CD232 PRICE: £9.99 +.75p P&P
STATUS: (New Release) Janurary 1996
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CODE: CD201
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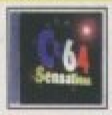
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MAGIC WORKBENCH - Colour scheme and icons. We have spent months making this CD the very smartest looking CD available today. Almost every program has a suitable MagicWB icon. We have even created custom Ray-Traced icons for the CD, any Amiga owner is guaranteed to be impressed!.

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C64 Sensations



CODE: CD181
PRICE: £17.99 +.75p
STATUS: In Stock
Remember the good Days - Contains all the Software that we have collected during our great times on the C64. Dating from 1984 up to the present day.

Surprising as it may seem to a lot of people there is still a lively C64 scene today. Although very different from a few years ago there are still a lot of people still heavily into the 64. And the rest of you, like us, have a lot of great memories.

That is one of the reasons why we compiled this CD. So anytime we want to reminisce the old days you can just pull out the CD.

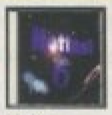
We garuantee you! that you will not have seen many of these amazing Mega demos as a high amount have not been releases before.

Amiga - Contains Amiga tools to be used for copying & converting the .D64 images back to your 1541 or into your Amiga. Also included is the FULL version of A64 Emulator Package.

Demos - This directory contains our entire C64 Demos collection. They date back from around 1986 until April of 1995. There are literally thousands of demos and magazines. Oh the fun I had looking over my old demos and reading charts in 5 year old magazines. The collection is as complete as it could be for someone mail trading for years.

Sid Tunes - Hundreds of Sid Player tunes. All the tunes are in Amiga Playsid format BUT have all been renamed with PC SidPlayer file extensions so they are runable on a PC as well. They are also runable through PlaySid. The latest versions of which is also on the disc are provided in the relevant Tools directories.

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CODE: CD200
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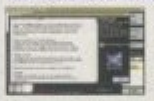
The files may be "importable" into most of the popular DTP Packages, art packages, viewers & word processors directly from the CD.

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Photovision - which is a full featured image manipulation and viewing tool.
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* Flags
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* Bikes
* Cars
* Cats
* Dogs
* Maps
* Men
* Sea
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* Sci-Fi
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* War

Also contains our menu system for easy use.





Aminet Set 1



CODE: CD112 PRICE: £24.99
Quite simply the best CD compilation around "CU Amiga"

What do you get:
Its a Quad Disc Set with the most comprehensive collection of Amiga software.

Dir	Size	Files	
dev	141Mb	800	Development.
util	103Mb	1,800	Utilities.
gfx	134Mb	900	Graphics.
pix	337Mb	1,100	Pictures & anims.
text	87Mb	500	Text Software.
docs	39Mb	400	Documents.
demo	336Mb	900	Demos.
game	160Mb	1,000	Games.
comm	80Mb	1,100	Communications.
hard	6Mb	100	Hardware related.
biz	63Mb	300	Business Software
disk	12Mb	200	Disk HD tools.
misc	109Mb	500	Miscellaneous.
mods	358Mb	2,700	Music Modules.
mus	29Mb	200	Music Software.

Aminet Set 2



CODE: CD220 PRICE: £24.99
Fast access to the wealth of the Aminet!!

What do you get:-
Its a Quad Disc Set with the most comprehensive combined Amiga software collection to date.

Dir	Size	Files	
util	120Mb	1,000	Utilities.
docs	270Mb	870	Documents.
text	40Mb	210	Text Software.
biz	75Mb	170	Business Software
pix	630Mb	2,000	Pictures & anims.
gfx	170Mb	430	Graphics.
misc	150Mb	270	Miscellaneous.
demo	630Mb	2,000	Demos.
game	250Mb	530	Games.
dev	110Mb	340	Development.
disk	10Mb	110	Disk HD tools.
hard	5Mb	60	Hardware related.
comm	150Mb	1,000	Communications.
mus	30Mb	120	Music Software.

Aminet Series



CODE: (mixed) PRICE £12.99
The all round best cdrom collections - Aminet

Aminet 4 - CD064 - Mar '95
Aminet 6 - CD175 - Jun '95
Aminet 7 - CD184 - Aug '95
Aminet 8 - CD208 - Oct '95
Aminet 9 - CD238 - Dec '95
Aminet10 CD246 - Feb '96

Contains more thihan 1 gigabyte (uncompressed) of software in thousands of archives. Since the release of Aminet 7 CD more that 500Mb of new software has appeared. The current edition has a special focus on modules. More than 1.00 were included. Many modules are of a very high-quality and feature 8 voices. The excellent user-interface has also experienced further improvements.

CD Boot v2.0



CODE: CD117 PRICE: £24.99
CDBoot is a phantastic new product that enable you to use almost any CD32 games on an A1200 or A4000.

CDBoot enables you to automatically boot from booting Cds (CD32) with a standard CD-ROM drive.

With the **CDBoot** CDROM you can create a configuration file for each CD, containing information on the Joypad emulation. You can also save the highscore of each CD32 game.

The Usage and installation of CDBoot is very easy, also for beginners, due to the excellent English manual.

Since the compatibility is very high, you can use more that 90% of CD32 games currently available. CDBoot is an excellent software solution for all Amiga Freaks, who would like to enter the world of CD32 game!.

F1-Licenceware



CODE: CD233 PRICE: £29.99
Sick of the run-of-the-mill old releases containg collections from pre-1995

The ***F1-Licenceware*** CD contains the complete collection of F1 titles from 1 to 100.

Over 100 titles or more than 200 disks!. This CD is worth well over £500, if the disks were bought separately. **There's something for everyone** on the CD - games, utilities, tools, professional clipart, music, beginners guides, educational programs and much more.

Some superb material is contained within this CDROM:-

* ***Blackboard v3.0*** (image manipulation)
* ***Ultimate Quiz 2*** (general quiz). Word
* ***Plus Pro*** (orignally valued at £15!)
* ***Fortress*** (strategy God game)
* ***Relics of Deldronsye*** (voted best PD game ever by Amiga Format)
* ***ERIC*** (voted second best PD game ever)
* ***Powerbase*** (databse program)
* ***GRAC*** (superb Monkey Island' style adv game creator with 1000's of copies sold on floppy)
* **Introduction to Workbench** (Best Seller!)
* **Absolute Beginners Guide to AMOS**
* ***Junior Artist*** (kids paint package)
* ***Tots Time*** (one of many kids programs).

Commerical Software

Use some of the professional music within your games, with no extra charges.

What about the clipart for your DTP documents? AMOS programmers have a field day with this CD - AMOSzine, guide to AMOS and AMOS supplements.

Something for everyone. With a very easy to use AmigaGuide© interface with 80% of the programs running straight from the CD.

Remember that the programs are commercial, with copyright owned by F1.

All programmers receive a royalty for every CD sold.

Assassins Games 2



CODE: CD211 PRICE: £18.99
For the Ultimate Games Experience play with the Assassins!

The **Assassins Games 2** CD comprises of hundreds of the latest Public Domain and Shareware games for the CD32, CDTV, and Amiga range of computers.

All the games are accessed via the easy menu system. The Amiga guide document provided gives you easy access to the games instructions and its possible to play them direct from the Guide.

The Guide also provides compatibility note for certain games with your particular machine. Also included are over 70 workbench games ready to play from the workbench.

Parnet and Sernet are also provided to allow access to the full contents of this compack disc on an Amiga with CD32/CDTV.

Over 18 products available upon request, call for details

ZOOM Release 2



CODE: CD234 PRICE: £18.99
The latest PD and the Latest CDROM from Active software Comes release 2!

If youwant the latest or greatest PD Software then look here! The CD contains well over 1,100 disks, over 640Mb's of data or 1.3 GIG's of Public domain.

New Search Routine
The Multi-tasking search/find will seek file names or numbers.

* Greatest & latest PD from October '94 to December '95: Utilities, Games, demos, Slide shows, Educational, Disk magazines, & more!.

NEW! - A selection of Active software Pro Packs
NEW! - All professional sound samples
NEW! - Over 22Mb of read-to-view/use magic Workbench icons etc.
NEW! - 100 Klondike/Card Games Deluxe sets

Global Amiga Experience



CODE: CD199 PRICE: £24.99
Test the best Amiga Software with many full versions.

Contain demoversions of commercially distributed software for the Amiga ***The Global Amiga Experience*** CDROM. The full Imagine program is a big plus. **AS57 "92% Star buy."**

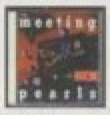
What do you get:-
*** *Some of the examples of demo versions*** - Caligari 24, XiPaint 3.1, PPaint 6.3, Image FX 2.0, Photogenics 1.2, Bars & Pipes 2.5 etc.

8 Full versions
Scala 1.13, Imagine 2.0, VistaPro 1.0, Distant Suns 4.0, The Edge 1.721D, X-Copy, Clarissa 1.1, Steuerfuchs Pro '93.

"Its Great value for money" Amiga Shopper

This CDROM contains 530Mb of demo and full versions of commercially distributed Software.

Meeting Pearls 3



CODE: CD224 PRICE: £8.99
Germany's most popular Amiga CDROM has grown by a new addition!

What do you get:

3Mb	CD-ROM Utilities
9Mb	Games
35Mb	Graphic Programs
21Mb	Communications & Networking
5Mb	Debugging Tools
29Mb	Development Tools
13Mb	Floppy disk, Hard Disk, & SCSI
8Mb	Educational Programs
10Mb	Packers, Crunchers and Archivers
39Mb	Internet Movie Database. Updated
7Mb	Midi Tools and Programs
27Mb	Music Modules
12Mb	Music Programs and Software
21Mb	Pictures
13Mb	AmiTCP and more for Networking
60Mb	Documention, CD Databases, etc
96Mb	PasTeX v1.4 - Not released before/
15Mb	Utilities
30Mb	HTML-Pages.

Hottest 1, 2, 3 & 6 Set

CODE: CD240 PRICE: £29.99
More than 2,400Mb of Software from PDSoft's main library.

Quad Disc Set (4 Discs)

The Public Domain and shareware software on this disc dates from **Jan 1988** to **Dec 1995**. Thats our first 3 cdrom disks (not released before) and our latest release for less than a commerical game would cost.

All the disks have been packed with DMS to retain the original disk format and contents and it comes complete with an easy to use menu system.

The CD's Contain some of the best and most original Amiga Mega Demos, Games etc you will ever see.

Pro Clipart Volume 2



CODE: CD053 PRICE: £17.99
Come with a 250 Page Book

Is **crammed full** of clipart & related software. Every one from Juniors to adults will simply love flicking through the 250 page book selecting the pictures desired as you go, instead of loading a viewer

Directories such as Animals, boys, cultural images, floral and natural images, girls, holiday images, literary figures, mythological images, scenery, transportation, and work images. The disc contains drawings of bears, cats, dinosaurs, dogs, insects, horses. Cultural images from Egypt, Japan, Native Americans, Polynesia, Persia are also included on the disc. Floral & natural images include blossoms, planets, sky, the sun, trees, and weather.

Network 2 Package



Code: CD235 Price: £39.99+£2.45
Get connected - CD32 to Amiga.

The ***Network Package*** & CDROM. **Wierd Science.**

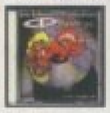
*** Network CD 2 £14.99**
*** Sernet Cable £25.00**

*** *The Network 2 CD and Cable*** combination allows the connection of the Cd32 or CDTV (CDTV only to be purchased with Network CD Vol 1 please Ask) to any Amiga. This connection enables a communications channel between the two machines, thus allowing the transfer of files from one machine to the other. Put simply you can gain access to the CDROM drive on the CD32 and use any of the normal CDROM titles within this ad.

File Transfer If you have a directory Utilities such as Directory Opus, Sid or DirWork the access to any CDROM's files is simple. (DirWork [Shareware] is currently on the CD).

Postage & Packing by Recored Delivery **£2.45**

Eric Schwartz CD



CODE: CD229 PRICE: £24.99
Eric Schwartz needs no introduction to any Amiga Animation fan!

As you may have already gleaned from the title, this is a CD-ROM of pretty much the complete collection of pictures, animations and relatedfiles by Eric W. Schwartz.

There are directories for animations, pictures, 3D object files, icon files, & more that hopefully will interest you. Also included is a special "Artists" section with material by other artists whom I've has come in contact with over the years. These artists you may have heard of, while others are new to this medium, but I'm sure you will enjoy all their work.

An Amiga Library Serives CDROM By Eric Schwartz and Fred Fish.

Content Warning

The Sound Library



CODE: CD101 PRICE: £19.99
Over 1,000Mb of the best quality Sound Files.

Its a Double Disc Set with the most comprehensive collection of sound related software to date.

What you do get:
* **MIDI** - files various formats.
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* **Over 1,000** Music Samples.
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Latest Whoup-it for windows, Drum Blaster, Tetra sequencer, Blaster Master, Windows sound utilities, Trak Blaster, Arcu Music system, Multi Media Jukebox, Cinema, MOD4Win, Music Sculptor, Surfs UP, PC Drummer, and much, more.

Sci-Fi Sensations



CODE: CD207 PRICE: £18.99
is an exciting new Double Disc Set Containing over 1000Mb of Science fiction related software.

The Sci-Fi Contains Images, Music, Animations, 3D objects (Imagine & Lightwave), Sound FX, Documents, Tunes, Information and Games.

Catories include:

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* Star Trek
* Deep Space 9
* Batman,
* Robocop
* Aliens, 2001
* Tron
* Thunder Birds,
* Next Generation
* Voyager
* Dr Who
* Bladerunner
* Battlestar Galactica
* Total Recall etc.

All ready to run direct from the CD

Images, Games, Clipart, SCI-FI Fonts, Information, WallPaper, Stories, Music, Samples, 3D Objects, Game Graphics, Tools, and Animations in FLI, FLC, ANIM, Movies, AVI, Mov and MPEG formats.
* NOT PART OF ANY SPECIAL OFFERS

Turbocalc v2.1



CODE: CD218 PRICE: £9.99
is the unique software solution that defines a new standard.

Experience is nearly unlimited capabilities in all relevant catogories. ***Turbo Calc v2.1*** CDROM.

Design - Extensive formatting options, all supported font formats allowed, no colour restrictions, various cell frames etc.
Functions - More that 100 functions covering arithmetical and financial needs
Diagrams - All common chart types supported, footer and header, legend and axis labelling, output as IFF-file or graphic printout.
Printout - Out in built-in printer font (draft mode) or as freely scalable graphic (requires OS2.0 or higher).
Technical Characteristics
Sheet size limited by avaliable memory only, no restrictions in sheet or windows quantity, import of foreign formats supported (eg MS Excell), detailed amiaguide manual.

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THE BEAUTH OF CHAOS - WORLD OF SOUND - ESSIONAL UTILS



Return to sender

If you made it through **Neil Mohr's** AmiTCP guide last month, all you'll be waiting for is to send those **e-mails**. Here's how to do it

Well if you managed to get through last month's virgin Internet guide you should now be FTPing, IRCing and Web browsing to your heart's content, and you will even be able to receive news and e-mails. This just leaves the subject of setting up AmiTCP so you can send out e-mails.

At the end of last month's guide you will have already installed what is known as an SMTP Daemon. This watches out for new mail that is destined for your machine appearing on your Internet provider's mail server. When you first link up, every few minutes the Daemon checks to see if there is any new mail. If there is it is automatically downloaded from the mail server to the correct mail box in your UUMail directory.

On top of this you need a number of other small programs that many mail programs need to allow mails to be sent from your machine to wherever their destination may be. If you used the Demon DIS95 installer, all these programs have been already set up for you and are happily running in the background sending the mail off. If you did not use the Demon installer then you will have to get hold of the programs that handle e-mail dispatch. To get your mailer up and running you need to get hold of a couple of programs that will spool sent mail and also post it to your mail server. Possibly the easiest way to set up the mail is to get hold of the archive *comm/tcp/Amconnect.lha* from Aminet. This has all the files required to post and receive both e-mails and news articles, and it comes with a good installer script that will get you going as quickly as possible.

When installing Amconnect there are a couple of points in the installer script that you do not have to do because you will have created these files last month. The first part is when it asks if you want the mail Daemon

Jargon box

UUEncode – e-mail is used to transmit plain ASCII text files. If you tried to send someone a normal picture or program using e-mail, the person at the other end would just receive a load of garbage. This is because ASCII only uses 7-bits, while a normal binary file uses 8-bits. Therefore, if you try to send a program file it loses every eighth bit. To get around this uuencoding was invented which translates the original binary file into an ASCII alternative that can be sent using e-mail. Once received the file can be uudecoded, leaving the original binary file intact

MIME – Multimedia Internet Mail Extension. This is used by mailers and Web browsers to determine file types and takes the form of extra 'packaging' that is sent with your e-mail. This describes what sort of file each part of the mail is, and to allow pictures and other binary files to be sent via e-mail a new form of uuencoding is used called Base64

Base64 – is similar to uuencoding in that it performs the same functions but removes some compatibility problems that were associated with uuecoded files

SMTP – Simple Mail Transfer Protocol. This is a set standard for how servers talk to each other. When you send or receive mail your computer talks to your Internet provider's server using SMTP. This runs in the background and you do not have to worry about it

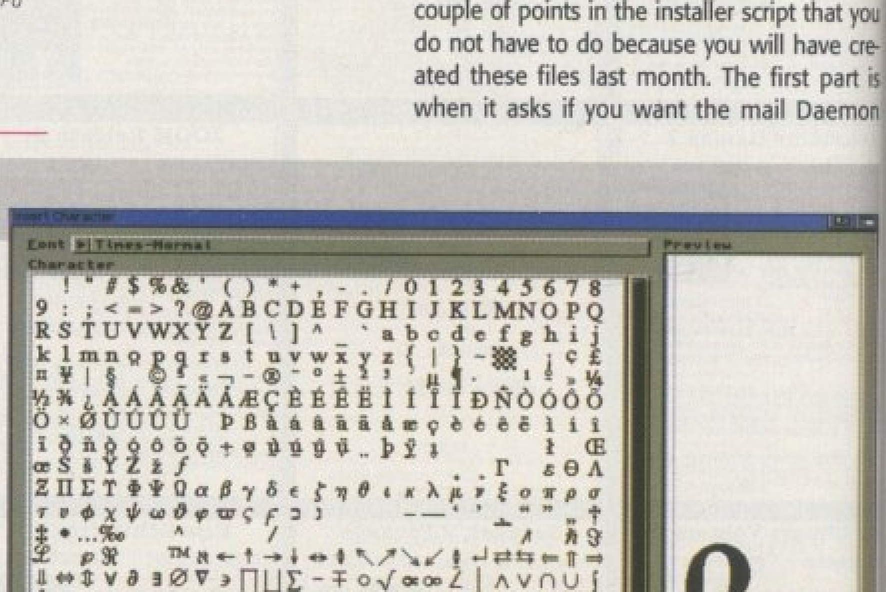
Daemon – a program that lurks in the background waiting for certain conditions to occur before jumping into action. The SMTPd is one such daemon, it waits for mail and then goes and fetches it

INTERNATIONAL RESCUE

The Internet is a worldwide phenomena, and you can quiet easily find yourself communicating with people from all over the world and not even realise it. Due to the international nature of the Internet you would have expected to be able to use the international characters that are available in the ASCII character set. For English and American users these are not used very much except for the British £ sign, but every other country in the world will need access to umlauts and the other accents found in French and German and most other non-English languages.

The problem is that normal e-mail only uses 7-bits per character, where as ASCII requires 8-bits. So if you try to use a pound sign or any of the other international characters they just appear as spaces to the recipient of the e-mail.

The only way around this situation is to either uuencode your original mail – a little round the houses – or use a MIME mailer. Using MIME you can specify to send e-mails in a number of different formats that will keep all of the international characters intact. Along with being able to send text encoded as Base64, you can tell your mailer to send it as the normal 7-bit or full ASCII 8-bit. As standard the MIME form of text is called quoted-printable and will send you text, so it will not be affected by the normal 7-bit e-mail limit, even though you should be aware that text that you send is word wrapped to 70 chars across. Therefore, if you send a uuencoded file using a MIME mailer you should select 7-bit text as this reproduces what a standard mailer will do

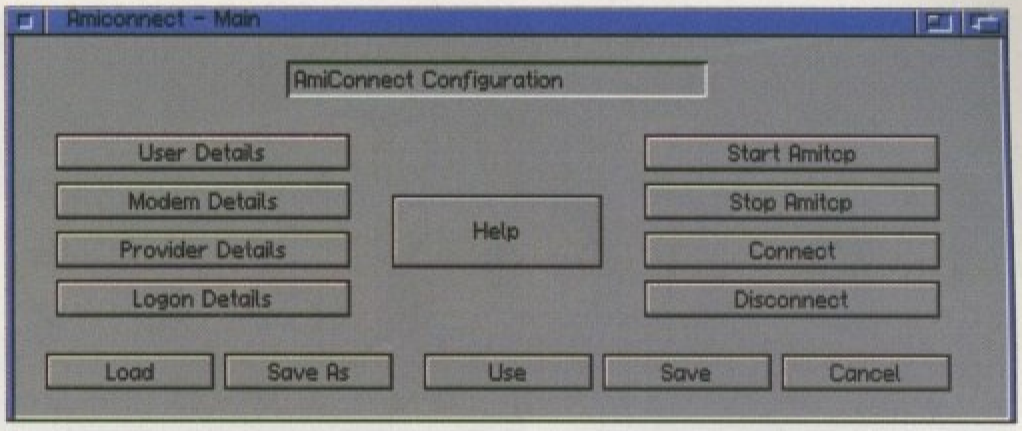


The only way you can use any of these characters is to get hold of one of the Amiga's MIME mailers

installed – this is already in place so you can say no. The second point is that it will ask you where you want a number of directories created, but again these are already in place so you can proceed past all of these without worry.

The installer will then ask you for various details about your Internet account and then your modem setup. Do not worry about the modem details as long as your modem is Hayes compatible, which it should be. When it asks you if you want to change your *uulib:config* file say no because you should have already created this. And that is it.

Amconnect will handle all your setting up and logging on to your Internet account. If the program has trouble connecting to your modem go to the modem setup and change the AT&b1 to AT and make sure all the other entries are in capitals. If you still have problems after this, try reducing the modem speed. Once installed you are ready to rock and roll, apart from the fact you may need to get hold of a mail package. Many people use the Unix ports of Elm or Pine, but these are a little complicated to set up and I prefer something more straightforward. A demo of the new package Voodoo is available on Aminet and also MetaTool is worth a look if you use MUI.



A usable TCP front-end, Amconnect makes getting online that bit easier

VOODOO

The latest, and in some people's opinion, the greatest mailer for the Amiga or any computer, Voodoo is a MIME compliant mailer that provides many features, some of which are unique to Voodoo. The first thing you are going to notice is that with Voodoo, all your actions are performed from a single good looking and simple-to-use GUI.

Voodoo works slightly differently from other mail programs. Usually mail programs keep the destination mail boxes that are created by the SMTP Daemon, but each time you start Voodoo you ask it to collect mail from these files. It will then extract each mail and create a separate file in its own corresponding mail directory.

The demo version of Voodoo only allows you to have a single mail box, but the fully-registered version allows you to have as many as you like. After you have installed Voodoo, which is done for you via a normal install script, you will need to point each Voodoo mail box at the correct mailbox spool file.

Once this is setup, Voodoo will extract all the files from this spool file and generate a list of all the mails in it. For each mail the various MIME parts of it are displayed as icons as part of the speed button bar that runs across the middle of the window. These allow you to jump to each different section of a mail, with text, pictures and sounds all being displayed in the scrollable window. Even uuencoded mail can be handled automatically with the file being automatically decoded ready for you to save it off as the correct binary file.

When creating mails you can 'insert' new parts to a mail using a file requester. Voodoo then automatically takes care of packing it in the mail, just as it takes care of unpacking it. Currently, you can save off separate MIME sections but there is no way to view pictures on its own screen – you have to make do with the representation in the Voodoo window. Nothing can be perfect and there are a few problems with Voodoo, mainly with its interface. For starters, the programmer is on some sort of personal crusade about the fact the Amiga does not have any built-in public screen support. Because of this he has refused to include any option in the program to select a screen to run Voodoo on. This forces you to use a secondary program such as Screen Wizard to allow Voodoo to open on its own screen. He is making a valid point, but there is no need to inhibit your program over it.



One of the most recent Amiga mailers, and it shows

Another problem arises from the mail list and the mail viewer being lumped into one window. If you have a good number of mails in your mail box you are stuck to having a fairly small view of this list – it would be much better to have a separate mail list window. This would also open the possibility of being able to read more than one mail at once, which would be nice.

The other problem that arises from the GUI is if a mail has more MIME parts than icons that fit in the tool bar. This means you will never be able to access them, as their icons are not accessible unless you can make the window bigger. Something allowing you to scroll through all the icons would be needed in this situation.

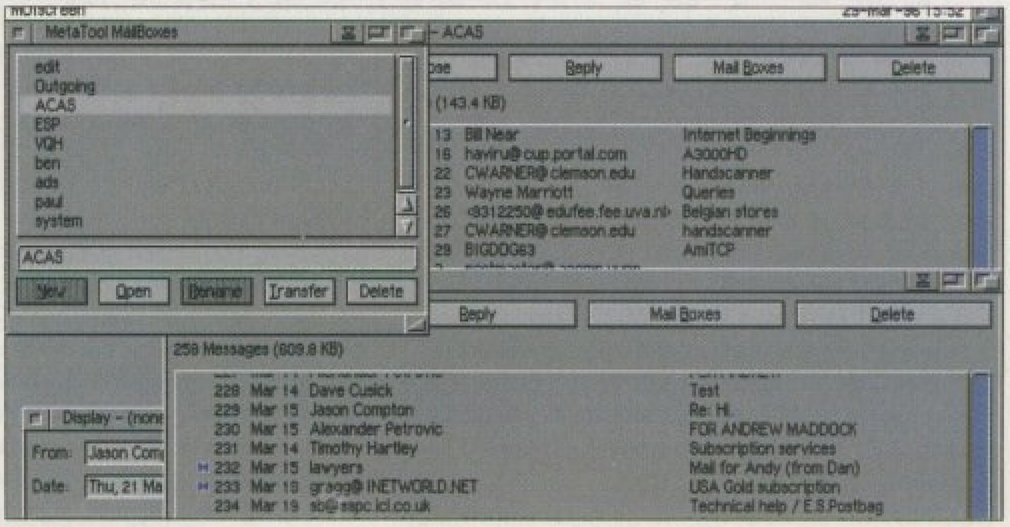
These are only minor quibbles and overall Voodoo is an excellent program that is very easy to use.

METATOOL

This is another MIME mail reader, and one that we use in the office. It uses MUI which some of you may not like but it is totally based on listviews that are very speedy to use. MetaTool is completely multithreaded, so every window opened in MetaTool works independently of the others. Therefore, you can have multiple mail box windows open as well as being able to read as many mails as you like.

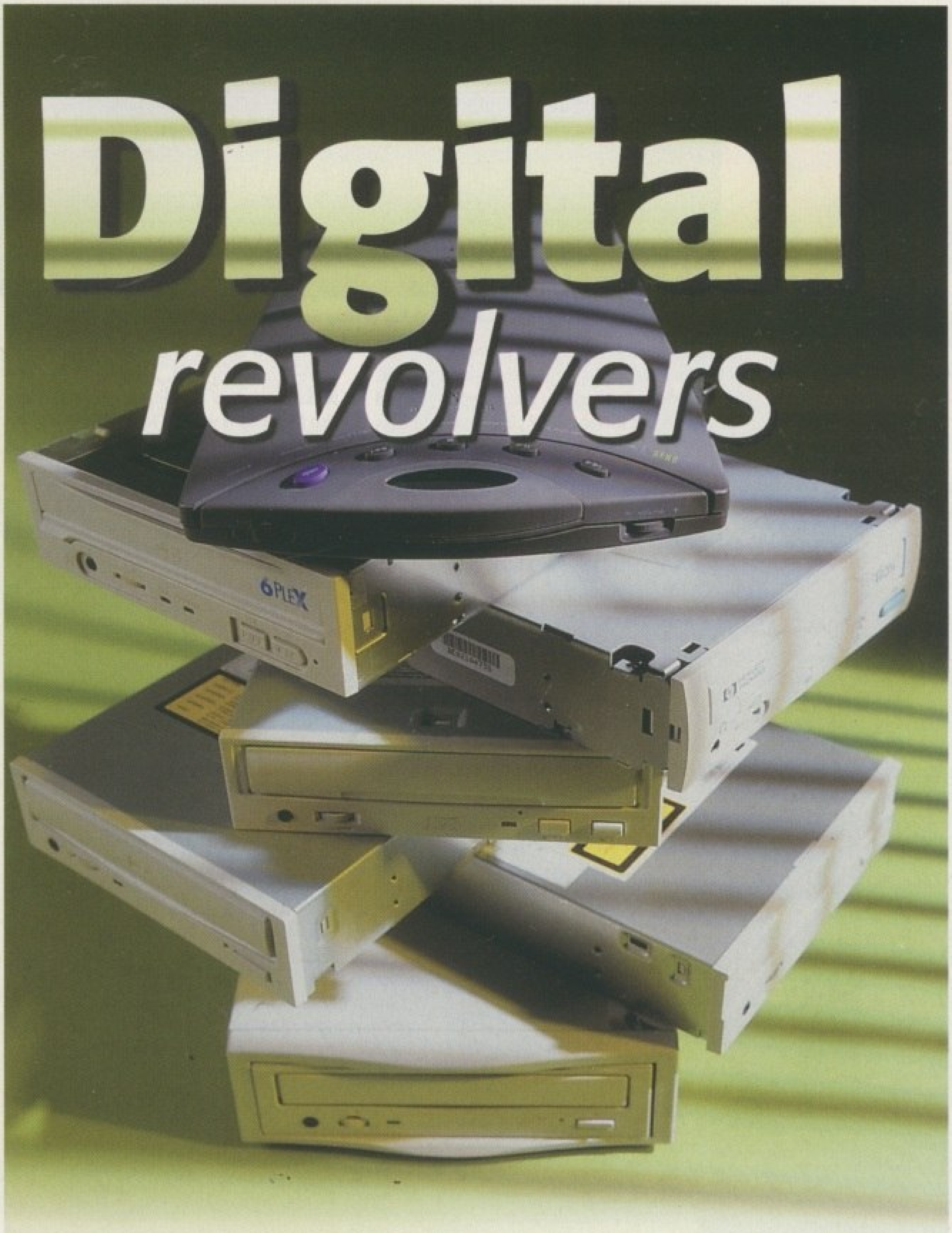
If you followed last month's guide, once you have extracted MetaTool it is ready to run. The only thing you will need to change is MetaTool's *Mailcap* file. For each MIME type you need to specify what external program should be used to view it. Normally MultiView will be fine, but you need to make sure the path of MultiView is correct – this should be *sys:utilities/multiview* otherwise MetaTool will not be able to find MultiView to run.

MetaTool uses the standard mail boxes generated by the SMTP Daemon, and each time you open a mail box MetaTool scans the file generating an index file and mail list. The current version will also automatically update if new mail arrives while you are online, so you do not have to quit the program. It may not be as flash as Voodoo but it is simple and fast to use.



If you have to deal with lots of mail, MetaTool provides a powerful interface

Digital *revolvers*



CD drives have become an **indispensible** part of any serious Amiga set-up. Now **Gareth Lofthouse** brings you the definitive head-to-head guide

Jargon box

SCSI *Small Computer System Interface; an interface standard for connecting peripheral devices to a computer system*

IDE *Less advanced interface than SCSI, only allows you to connect two peripherals and the data transfer speeds are not as fast.*

RENO PORTABLE CD-ROM

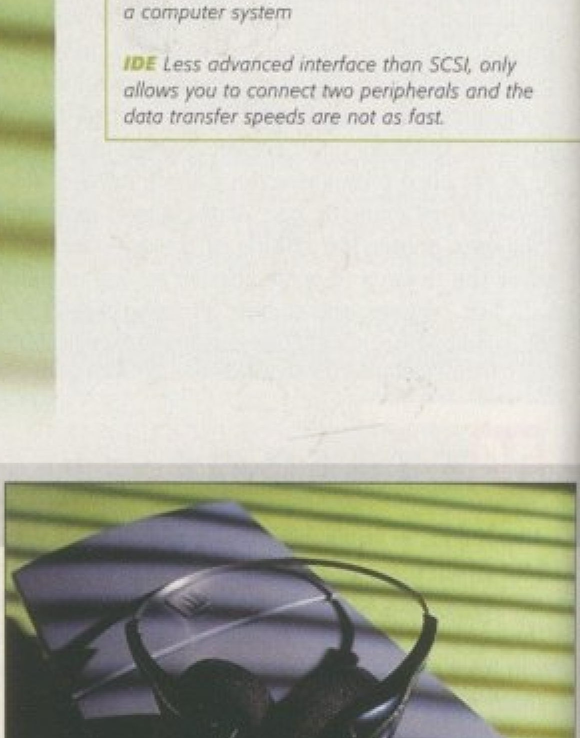
When it was released in 1995, the Reno was acclaimed to be the product that brought a bit of style, innovation and flair into the all-too-uniform CD drive market. While everyone else was trying to outdo each other in terms of speed, going from triple- , to quad- , then six-speed or above, Media Vision released a relatively slow dual-speed drive that still makes more sense for the average Amiga owner.

In a world of square hardware, the chic Reno is sleek, wedge-shaped and unashamedly purple. It features prominently mounted controls you can adjust *without tweezers*, it's lightweight and, unlike it's office-oriented rivals, it looks like a gadget you can have a bit of fun with.

As indeed it is. Uniquely, the Reno can be transformed from a multimedia workhorse into a portable audio CD player fit for irritating fellow passengers on any train or bus. In this form the Reno is a well-designed lightweight unit that can be carried around in the supplied protective case. A pair of headphones have been supplied, and it's so simple to use that the casual observer will be clueless about it's more technical half-life.

A small LCD screen gives you the usual track search details, while routine play and selection buttons are dandy. In terms of sound quality, it won't have the audio-buffs in a frenzy, but it will do the job efficiently enough for anyone else. Many people would be happy to pay the asking price for the Reno in this capacity alone – though the fact that four alkaline batteries will only give you 90 minutes of play will make it costly to use without the mains lead after a while.

But, of course, the Reno is mentioned here because it can also be transformed into a CD-ROM drive. Users



simply attach the docking station – a small adaptor that is easily snapped on and off at the base – and plug it into a Squirrel SCSI interface. From thereon it

DOUBTS ON THE IMPORTANCE OF CD

Until recently, CD was seen as the key to multimedia. It was going to open the doors to the information revolution everyone has been banging on about for so long, and software/hardware manufacturers everywhere were jumping on the bandwagon in search of a fast buck.

Certainly the CD market has proved vitally important for not only the development of multimedia on the PC. However, this medium's importance in the future becomes increasingly questionable as possibilities for multimedia applications on the World Wide Web increase. Already, Sun's Java is allowing users of the Web to interact with animated content, and as on-line technology improves the importance of CD may decline.

"Long-term, the CD ROM is likely to prove to be an intermediate technology, successfully filling the gap until on-line capability is both widespread and efficient (i.e. fast, cheap, and easy to use), which may be ten or more years away" claims Future Media, a recent report on interactive technology from the London Business School. Many agree that Bill Gates, who himself admits to have been wrong-footed by the speed of the Net's development, may indeed have gone down the wrong path for once.

For the consumer, however, this will remain an area of purely academic interest at the moment. It may be that CDs eventually become no more glamorous than the floppy disks that preceded them, but they are likely to remain equally indispensible peripherals for a long time to come.

SONY CDU-76S

Fast yet unglamorous, reliable and efficient, this is your bog-standard SCSI CD-drive. There's not a lot to distinguish it from the others. Of course, there's the usual tray-loader (thank God they got rid of the pointless caddy method), head-phone socket with volume dial, on-off switch...you get the picture.

What is different is that the drive now features a new Sony mechanism which their lab says has greatly improved reliability – or 100,000 hrs MTBF as they put it. Not having the luxury of 100,000 hours before deadline, I'll have to take their word for it; suffice to say I've never had any problem with a Sony mechanism before, despite rough office use.

One thing you'd have hoped a company like Sony would have got rid of is those infuriatingly fiddly jumpers at the back of the CD player. It's a picky complaint, but it's important to correctly set the SCSI unit ID of the player or your drive won't be recognised by the Amiga. Having to mess around with these things makes it easy to screw up. It's unnecessary, because other drives visibly display the ID number and allow you to adjust at the click of a button. So much for user-friendly plug-and-play.

Bottom line

PRODUCT DETAILS

Product	Quad speed CDU-76S
Supplier	Sony
Price	£144
Tel	0181-760 0500

SCORES

Ease of use	80%
Implementation	80%
Value For Money	80%
Overall	80%



POWER QUAD

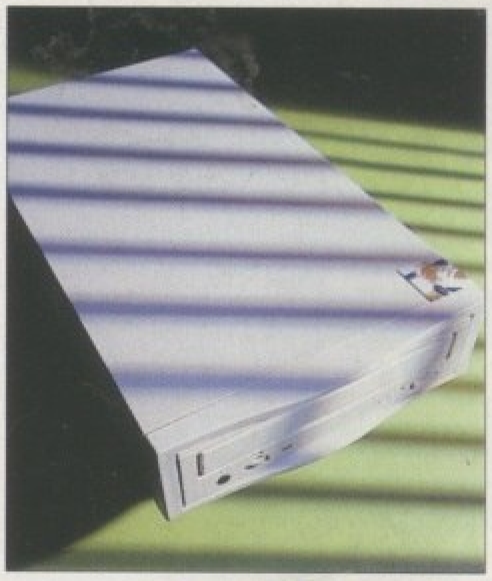
Probably one of the easiest options for A600/ A1200 owners, Power sell this quad as a kit that comes with a Squirrel SCSI interface and the relevant software to set it up.

Typically for most drives from Power Computing, it's big and takes up a bit more desk space than is necessary. That said, it has a sturdy metal casing and a good record of reliability behind it, which is ultimately more important.

Praise is due for the simple but helpful inclusion of a SCSI ID address selector, which means you don't have to mess with biros and microscopic switches when setting the drive up. If only other manufacturers would follow this example, life would be that bit easier.

For those who want to listen to audio-CDs on their drive, there's the usual audio leads, headphone socket and volume dial, plus the necessary software provided on disk.

Most importantly, however, is the fact that this is one of the best value starter kits available for the standard Amiga 1200/600. It's not six speed, but as a quad it's fast enough for most current uses. Furthermore, it's external and it comes supplied with a Squirrel, which is an invaluable piece of hardware in itself, plus CD32 emulation software which will allow you to play CD games.



Bottom line

PRODUCT DETAILS

Product	Power Quad Drive
Supplier	Power Computing
Price	£249 (Includes Squirrel)
Tel	01234 273000

SCORES

Ease of use	85%
Implementation	90%
Value For Money	80%
Overall	85%

AMIGA BLUE CHIP AWARD

behaves just like any other SCSI drive.

Of course, nothing's perfect. Compared to the other drives on test as a dual-speed it's relatively slow, and the Reno apparently won't play Mpeg movies. But since the Amiga so far remains sadly lacking in the all-singing-all-dancing multimedia department, this is unlikely to be a problem for most Amiga owners at the moment. Certainly, it is adequate for enjoying the wealth of PD CD titles currently available.

Another slight fear is that, being a lightweight portable, it doesn't feel as durable as something like the Power Quad. But then you wouldn't want to foot-tap round the park with Power's monolithic drive round your neck, would you?

Basically, the Reno is a rare example of a hybrid product that really works in both its guises. As a CD-ROM it represent reasonable value in itself, but the fact it converts to a portable discplayer makes it a bargain that must not be overlooked.

Bottom line

PRODUCT DETAILS

Product	Reno Dual Speed
Supplier	First Computer Centre
Price	£129
Tel	0113 2319444

SCORES

Ease of use	90%
Implementation	90%
Value For Money	95%
Overall	92%

PLEXTOR SIX SPEED



Another ultra-fast drive here, but the Plextor initially looks less attractive than the Toshiba or Goldstar because of its price tag. However, SCSI drives always cost more than their IDE counterparts, partly because they can be chained together with numerous other peripherals and also because the SCSI interface is generally considered more advanced.

The control facia actually looks slightly more considered than is the case with most of the other drives tested. Two LCD lights may not sound like much of an advantage, but in the past they've given me a clue as to what's been going wrong when the drive hasn't been working. Track advance controls are also obviously better for audio CDs.

It's strange, then, to find that an otherwise modern unit is still using a caddy loading tray. So what, you ask? Having already lost two caddies in the past, and knowing that even the cheapest drives come with the normal mechanical tray, I just find them unnecessarily cumbersome. Otherwise, those who want a combination of a high-speed drive plus the convenience of a SCSI interface should give it a thought – though for most, Power's Quad will represent a better overall package.

Bottom line

PRODUCT DETAILS

Product	Plextor Six Speed
Supplier	Plextor
Price	£245
Tel	01782 577677

SCORES

Ease of use	77%
Implementation	82%
Value For Money	76%
Overall	78%

GOLDSTAR SIX SPEED



Quad speed is more than fast enough for most uses with the Amiga, but those who want to play animations and movies directly from CD may want an even faster drive. If so, a six-speed drive is as fast as they come at the moment, though most manufacturers are on the verge of releasing their eight-speed drives in a few months.

The Goldstar drive features a blistering 900Kb transfer rate, a 160ms Average Access Time and a 256Kb Buffer Memory. It also features audio connections to play music CDs, which explains the track advance button mounted along with the ubiquitous eject and volume controls. This, of course, is combined with other drive-standards like support for CD-DA, and the motorised tray mechanism.

Until more multimedia CD products are produced, the value of such a fast drive is debatable. But being an IDE drive (which you should be able to use with Blittersoft's ATAPI interface) the Goldstar six-speed is extremely affordable and is recommended

Bottom line

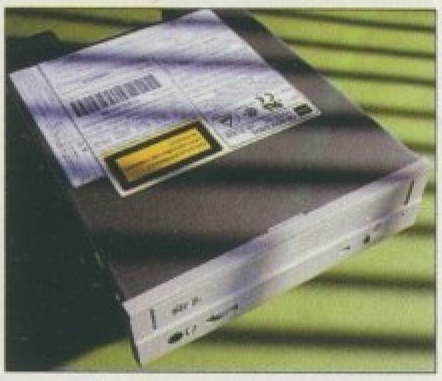
PRODUCT DETAILS

Product	Goldstar GCD-R560B
Supplier	Goldstar
Price	£114 (Ex VAT)
Tel	01753 500400

SCORES

Ease of use	78%
Implementation	88%
Value For Money	80%
Overall	82%

TOSHIBA



This drive looks boring and has nothing on the surface to distinguish it from any of the others. But – and it's a *big* but – it's six speed, and it costs just £76.

At that price you'd be mad not to consider it as an option, though it is, of course, an internal IDE drive for use with the ATAPI interface. It includes all the standard features you'd expect of an up-to-date drive, though unlike SCSI units you can't use it at the same time as six other peripherals. That said, many of us can do without that luxury.

Beyond the fact that Toshiba drives are a well-respected make – in fact Toshiba mechanisms are what you'll find at the heart of many of the CD ROMs made by Amiga stalwarts – there's not a lot more to be said. This is an efficient, super fast drive at an incredibly affordable price. Recommended.

Bottom line

PRODUCT DETAILS

Product	Toshiba Six Speed
Supplier	Ideal Hardware
Price	£76
Tel	Tel: 0181-286 8000

SCORES

Ease of use	88%
Implementation	88%
Value For Money	96%
Overall	90%

JUST PLUG, NO NEED TO PRAY

Plug and Play – this was the buzz term that heralded the launch of Microsoft's much-vaunted Windows 95. After years in which PC users had to struggle with a difficult operating system every time they wanted to use a new peripheral, at last they could buy a CD drive and simply 'connect and go'. Plug-and-Play was hailed in newspapers as a great innovation, and the future of multimedia computing.

Of course, those wise to the Microsoft propaganda machine knew Plug-and-Play was a new name for an established idea. In fact, as multimedia specialists like SCALA will testify, the Amiga has long been a Plug-and-Play auto-configuring machine. In other words, you don't have to be a techie to broaden your Amiga's horizons by connecting a CD drive.

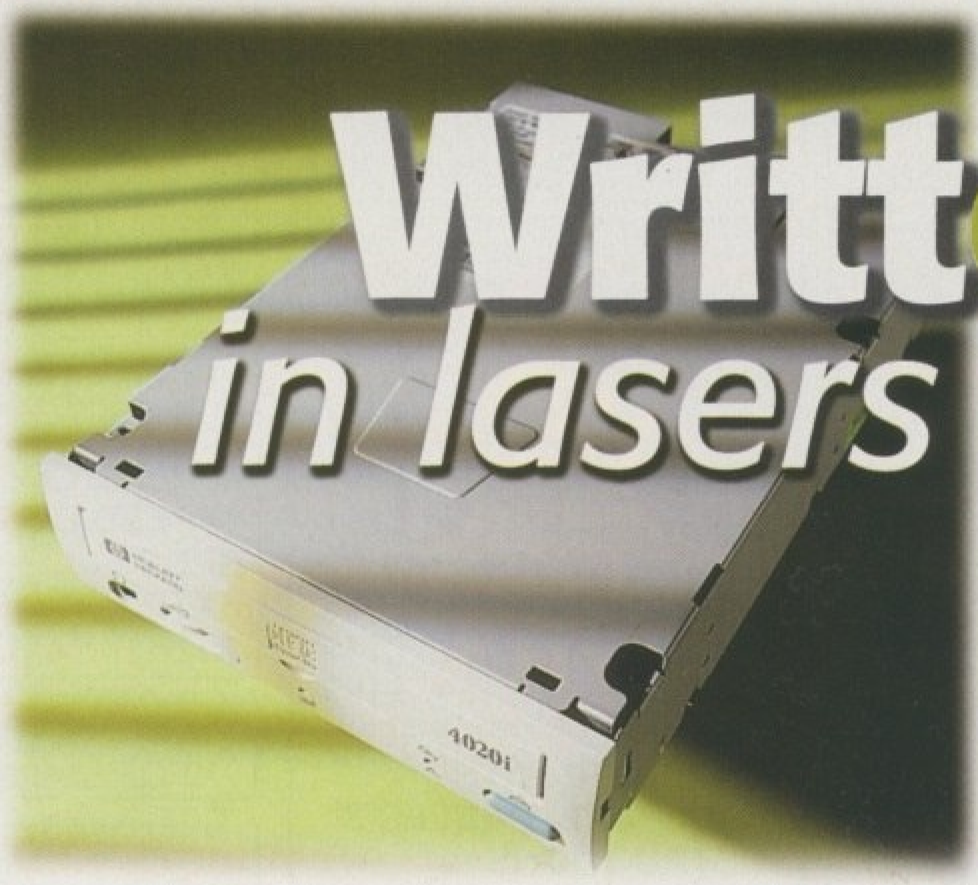
You will, however, require an interface so that your new CD drive can talk to your Amiga and vice-versa. By far the most popular of these is the affordable Squirrel for the A1200/600.

When looking at buying a CD drive for use with the Squirrel, it's worth remembering that many Amiga specialist dealers sell them as part of a bundle. Bear in mind when first connecting up that the pins on the Squirrel's plug are fragile, so if you're too rough you can knacker it before you've even got round to reading the instructions.

Owners of big box Amigas like the A4000 will have to use either Siren's Dataflyer or Octagon's controller card if they want to use SCSI drives.

A more recent alternative for Amiga users is the ATAPI IDE interface from Blittersoft which allows you to buy the cheapest drives on the market, though it's not as flexible an option as SCSI. Whatever you choose, make sure you buy the right sort of drive for the right sort of interface.

Written in lasers



Frank Nord examines a tool that is coming into the reach of Amiga owners

CD-ROM burners, once the exclusive province of large multi-national companies, are becoming cheaper and cheaper, just like other computer media. Where once you could expect to pay 4000 for a single speed burner equipped with primitive software, you could now buy about four of these jobbies and be able to write to disc at twice the speed you previously experienced. It is possible that CD-ROM writers will replace DAT tape streamers as the back up medium of choice, given the sturdiness of a gold disc compared to the relative frailty of DAT tapes, and now that the cost is coming down rapidly, and the write speed is increasing, perhaps CD-ROM burners will become a viable alternative.

Of course, backing up data is merely one of the options available to you once you have a CD-ROM burner. Amiga owners who also have the MasterISO software from Asimware, creators of AsimCDFS, will have the ability to compile music CDs of their work with existing 12- and 16-bit sampling cards like the Toccata, and also make CD-ROMs that will boot on a CD32. But more on that later. Let's first have a look at the physical aspects of the burner.

Looks

As you might expect, the HP4020i doesn't look much different from ordinary CD-ROM drives, with the obvious exception of there being a write status LED which glows red when there is data being written to a gold disc. The case itself is pretty much fully enclosed so you won't have to worry too much about touching static sensitive components as you are inserting it into your machine. The connections at the rear of the drive will also be instantly familiar to existing owners of CD-ROM drives, with the standard SCSI and power connectors, four-way audio lead and jumpers. All these are very clearly marked so that you don't plug the SCSI cable in the wrong way, for instance, and the jumpers aren't too difficult to get to.

The drive functioned just fine with both the standard A3000 SCSI controller and the Oktagon we have at work, and performance under them was almost identical. However, before you rush out to buy yourself one of these beauties it is worth remembering that you will need some other items on your SCSI chain. Of course, you'll be able to dump that CD-ROM drive you already have, unless, like me, you like to listen to audio CDs while you're working.

More importantly, you will need some hard drive storage space. We're talking about serious amounts of hard drive storage space here now. For a start, you'll need somewhere to keep all your files while you are working on them on the hard drive, then you'll need somewhere to store your ISO image once you have built it. Now there's not much point devoting a whole gig drive for files if you can only fit 650Mb's worth onto a CD, but you'll still need about 1.3Gb just for CD development (these drives needn't actually be SCSI, Master ISO works just as well using an IDE drive for this purpose, it's just that you will need a SCSI controller for the CD burner itself). This shouldn't prove too big (or expensive) a problem these days.

But there might be another pitfall in the lurking form of the dreaded Rigid Disk Block which will limit the amount of space you can devote to hard drives to a paltry 4.3Gb. Well, it might seem like a lot to start with, but if you are going to be developing CDs, you'll soon feel the strain of keeping within those limits.

Using MasterISO is pretty painless – you simply point it at a hard drive or directory and it lists all the files therein. From there you can build an ISO image onto another partition and finally write that image onto the CD-ROM gold disc. Although it doesn't seem like a lot of software for its asking price, it is essential for anyone using a burner on an Amiga. If, of course, you are going to use this drive on a PC you actually get everything you need to start burning CDs, even a SCSI controller card.



Using MasterISO is a simple procedure, listing all the files in your directory so you can build your image

You burnt my CD!

This drive is great. Once you have actually created an ISO image of whatever you want to put onto CD it only takes about half an hour to write the whole lot onto disc. Of course, compiling the data and building the ISO image might take you a lot longer, but that's life I guess.

One of the uses I have considered putting it to would be to dump my whole Work partition to it, all 450Mbs. That way I can then use all that space for other things like frames from LightWave or clip art, etc. and my programs will never get corrupted. Okay, so they won't load as fast from CD as from my hard drive, but then it's not like having to reload programs over and over again in a single session, so the slowdown won't cause too many problems.

As for whether I think you might have a use for it, well, I think that if you are currently looking to buy a DAT drive and don't have a CD-ROM, it might be worth the extra cash to get one of these drives. The media doesn't cost as much and they have more than one use.

Bottom line

Requirements

RED *essential* **BLACK** *recommended*

2.04 kickstart — Very large hard drive

Product details

Product	HP4020i CD-ROM Burner
Supplier	First Computers
Price	£929.95
Tel	0113 2319444
E-Mail	firstcom@firstnet.co.uk

Scores

Ease of use	85%
Implementation	85%
Value For Money	80%
Overall	85%

Product details

Product	MasterISO
Supplier	Blittersoft
Price	£129.95
Tel	01908 261466

Scores

Ease of use	90%
Implementation	75%
Value For Money	75%
Overall	80%

FULL steam ahead

Tired of using your **CD32** for games. Now you can turn it into an **A1200** with the SX-32 Module. **Andy Maddock** reveals all

So you bought yourself a CD32. Okay, so it may've been a good idea at the time because the future which was rumoured to be ahead was looking mighty fine and games companies were interested in releasing top quality games. After all it was the first 32-bit machine available – well before the likes of the Playstation or Saturn – and all that was lacking was the support. And to this day, companies are still very hesitant about releasing software for it – and quite rightly so.

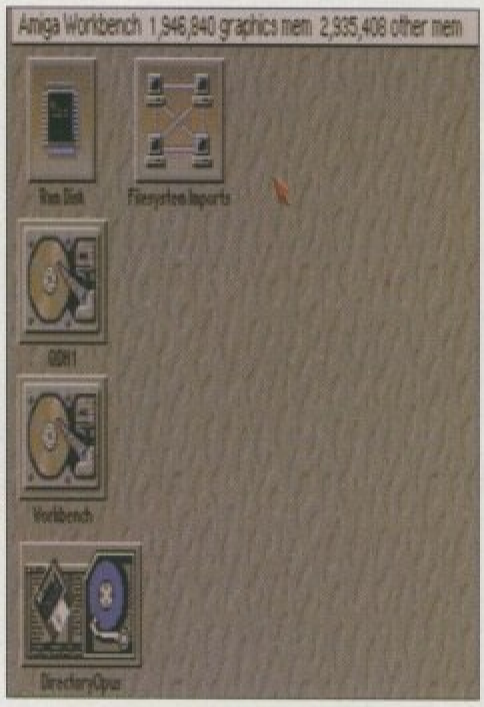
So can you continue to play delights such as Cannon Fodder and Microcosm for the rest of your life? I don't think so.

There were no actual games on the CD32 which took advantage of the machine's capabilities. Unfortunately, all we saw were conversions from the A1200 floppy version so the CDs were released when they weren't even half full. Something should have been done then but CD32 owners were left pretty much in the dark. And once again, it was left for someone else to dig Commodore out of their hole.

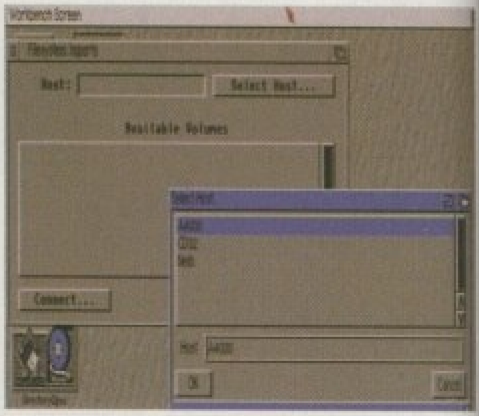
Eyetech are the masterminds behind this fabulous way of turning your CD32 into a fully functioning A1200, making proper use of the CD32's AGA chipset. The actual module makes use of the CD32's expansion port at the back of the machine, although it's not just a case of taking the screw out and sliding it in. Firstly, you will have to take all the screws out of the main plastic base, making sure not to dislodge the laser ribbon, and then you have to stand the lid up vertically, sticking it down with two sticky pads to aid you, although it may be handy to get someone to hold it while you firmly slide the module into the expansion port while the actual board slides over the metal casing.

All you have to do then is screw it up tightly so you don't see the board through the side of the CD32. The whole fitting process itself caused me no problems

AMIGA BLUE CHIP AWARD



You can see that after installing Workbench 3.0 and then MagicWB – your CD32 can look like this



I managed to install the networking software Envoy so others could share the delights of my hard drive



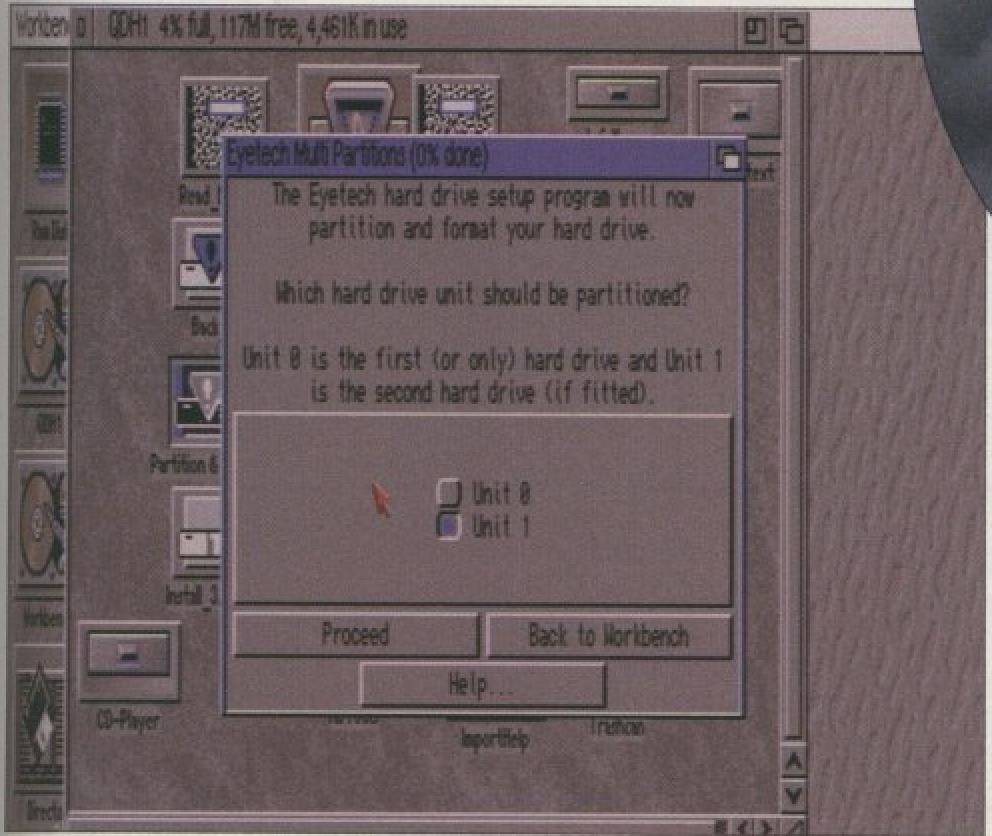
COLOUR COORDINATION

It's difficult to see the Amiga A1200 in such a mismatch package. It's all in bits and the CD32 is and always has been an odd blue/grey colour while the rest of Amiga's equipment has always been white or cream. So what exactly was the thinking behind the design? Was it because they were both meant to be completely different pieces of kit?

The only real downpoint of the module is the colour scheme. The cream keyboard and floppy may not look suited next to the blue-like case of the CD32 and powerpack, but who's complaining? If the keyboard was a blue colour similar to that of the CDTV it may look slightly more professional but nowhere near as Amiga or home computer-like.



A free CD is also included to kick off your CD-ROM fun



The whole package is complimented with an excellent installation disk

whatsoever and it managed to slide in with ease and perfectly in conjunction with the instructions.

The module has five ports on the back which give you the access an A1200 can offer. The Parallel port enables you to connect to a printer or onto another Amiga using a Parnet cable, the Serial port lets you connect to a Modem or another networking method via Sernet, and the VGA port in the middle is for a VGA monitor. The external floppy drive will fix up to the drive port and finally there's the video port so you can use an ordinary RGB output for a much sharper picture than the composite, which is your only option with a standalone CD32. If you take a look at the back of an A1200 you will see the SX-32 module now has every port the A1200 has to offer.

That's about all the installation there is – the only thing left is to sort the hard drive out. There is an installation disk with utilities enabling you to read and configure and then partition your hard drive perfectly. Our hard drive was 240Meg which is quite amazing when you imagine it's merely a CD32. In fact, it's impossible to think there is a hard drive in the CD32.

> *"Eyetech are the masterminds behind this fabulous way of turning your CD32 into a fully functioning A1200, making proper use of the CD32's AGA chipset"*

With the SX-32 module you can make use of the AGA chipset, graphic and sound software, and something which CD32 owners have never been able to get their heads around – saving. Before, there was always a complicated key method for locking and unlocking save games built in to the CD32's hardware. Finally, you can output all your own files to the hard drive inside or on a floppy via the floppy drive.

What makes the SX-32 module a dream to use is that the actual CD32 unit isn't really modified in any way. Basically, they are all peripherals which merely add-on to the unit itself. For instance, if you have never opened your casing out of curiosity you would never believe there is so much room inside. The hard drive works away quietly and quickly and certainly makes all the difference. AC

SMALL CHANGE

One of the problems you may come up against is the need for a floppy drive. If you've bought yourself a CD32 it's unlikely you will have a floppy drive knocking about. Eyetech are selling them for £44.95 but it may be worthwhile looking around for a second hand floppy drive. You could probably pick one up for about £5 to £15.

After totalling up the prices of the various peripherals it may seem rather expensive, but at the end of the day, if you've already spent nearly £300 on the CD32 itself, maybe it would be worthwhile to invest further to make use of the money you've already spent. The only other options are to put it away to collect dust or revitalise it by turning it into what the CD32 should have been.

Bottom line

REQUIREMENTS

RED *essential* **BLACK** *recommended*

CD32 — Floppy drive

PRODUCT DETAILS

Product	SX-32 Module
Supplier	Eyetech
Price	SX32: £199, Keyboard: £34.95, Floppy drive: £44.95
Tel	+44 (0) 1642 713 185

SCORES

Ease of use	90%
Implementation	92%
Value For Money	81%
Overall	90%

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50 disk protector sleeves 99p
*Special offer £1 off if you order 5 or more pd disks

MUSIC

M001 BEASTY BOYS - We Want Some Pussy songs
M002 MICHAEL JACKSON - Song BAD
M003 DO THE BARTMAN
M005 100 C64 TUNES (not A1200)
M006 BAT-DANCE REMIXED
M017 GUNS & ROSES - YOU'RE CRAZY
M018 MONEY FOR NOTHING - DIRE STRAITS HIT SONG
M027 BLUES HOUSE (2 disks)
M029 SAFE SEX DEMO - Very funny
M031 BETTY BOO (2) needs 2 drives (brilliant)
M058 SGT PEPPER (2D)
M072 MADONNA - Hanky Panky Song
M084 C64 GAMES MUSIC
M115 MAHONEY & KAKTUS 2 - 40 tunes compilation
M125 ADAMS FAMILY
M150 TIFFANNY - I Think We're Alone Now
M171 MADONNA - (Like a Virgin)
M173 JANET JACKSON - RHYTHM NATION
M177 PET SHOP BOYS
M184 SAM FOX (Please Me)
M186 MADONNA (Rescue Me)
M188 JOE LE TAXI
M189 MICHAEL JACKSON (Smoot Criminal)
M194 JESUS ON E's (2 disks)
M205 RAVE - More Rave
M262 A TO Z OF C64 GAMES MUSIC (4) Brilliant
M314 DICK TRACY (Madonna) (2)
M335 STAR TREK & STAR TREK NEXT GENERATION (2)

PRINTER MANAGER

U427 PRINTER-STUDIO excellent print results
U599 PRINTER TOOL - includes typewriter, spooler etc
U792 PRINT LABELS print disk labels/banners
U793 STAR PRINTER STUDIO - for all star printers
U794 SEIKOS STUDIO - For all Seiko printers more specific printer driver for the above printer
U733 PANASONIC STUDIO - 9 & 24 pin printer driver & util
U734 CANON PRINTER STUDIO not A500 (1.3)
U735 PRINTER STAR 24/200 FONT DESIGNER - shareware
U782 CITIZEN PRINTER MANAGER for all Citizen printer owners containing many useful printer util & drivers
U884 CANNON PRINTER STUDIO -f or all models for use with Cannon printers
U757 150+ PRINTER DRIVER largest collection

VIDEO TITLERS/TOOLS

U181 VIDEO NOTE database for your video collection,
U431 VIDEO APPLICATION (2 disks) many video titler prog
U250 VIDEO TOOL (3) loads of video utils. Recommended
U964 TELESUBTITLE - new video titler
U965 VIDEO MAKE V4.33 .The latest in video
U352 DESKTOP VIDEO 1 & 2 (best video titler tool) cataloguing system. Dozens of functions
U671 TELE TITLE 2 - Great new VIDEOS titler
U513 VIDEO TITLER (2 disks) more VIDEO TITLER-BEST
U920 TELESCROLL 2 (not WB 1.3) Easy to use Video titler loads of features
U921 WEDDING VIDEO ANIM (2 disks) Requires D.Paint 3/4, Very high quality
U922 CAPTION MACHINE excellent Video titler
U923 VIDEO MANAGER (Not A500 1.3) Video cataloguing system
U925 Video Tittler - very good video titler

Top Various Utilities

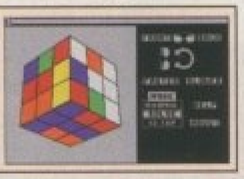
U024 D-LOCKS proctect your disk & files
U027 ULTRAPAINT & SURF paint & 3D model programe
U029 CAN DO programing languege
U046 DARKSTAR no2 (vol 2-5) load of util
U058 DISK MAG CREATOR created disk magazine
U117 NORTH C compiler (2) bril programing language
U122 SID 1.6 copy/delete/move file made very easy
U131 TETRA COPY play tetriz while copy disk great
U135 MOST USE UTILITIES (2) very useful util coll
U145 XCOPY PROFFESIONAL very powerful disk copier
U146 C-MANUAL 2(4) Teach you how to programe in C
U169 PAINT AND ANIMATE create your own animation
U170 BIORHYTHMS V4.01 display your own biorhythms
U184 MASTER SEKA V1.6 completes Assembler language
U186 UNLTIMATED DISK CREATOR all tool on are here
U187 M COMPUTER AID DESIGN - Was commercial product
U188 SHOWIZ slide show maker 24+ wipe effect
U191 SID II copy/delete/move/run file using a mouse
U220 AMOS-PAINT VGgood paint package lots of feature.
U222 GRAPHIC UTILITY(3)lot of graphic converter tool.
U226 50+ MOST USE UTIL load of very useful util.
U229 SLIDE-SHOW CONSTRUCTION KIT easy to make
U240 ARCHIVER TOOLS pack more file on to your disks
U242 IMPLODER 4.0 disk pack more programe on disk
U243 The A-7 COPIER (not Wb3) 13 disk copier.wow
U254 FRACTAL UTIL load of fractal programe. bril
U282 LAND BUILDER create realistic landscape.
U284 COPY & CRACK TOOLS back up your software
U300 MESSY SID II read/write PC/ MAC ect files.
U301 AUTO DISK LOGGER catalogue your disk
U321 GRAPHIC Util 1(3) load of bril graphic util
U324 GRAPHIC util 2(3) even more Graphic tool
U333 SCENERY MAKER more lanscape generator
U334 EMULATOR COLLECTION II (lot of emulator)
U335 FREE COPY back up commercial games
U337 MODEL 3D Brillant 3d object designer
U338 MULTI VISION (2) disk/files utilities
U340 HACKER-TOOLS many ripper tool
U350 POOL TOOL-predict horse with best chance
U351 RACE RATER Similar to above, but both
U358 STAR CAT 2-create catalogue disk easy
U359 SEEKER find lost file on flopy & Harddrive
U360 R.P.G (2) adventure creator
U363 DISK REPAIR KIT-salvage & repair damage disk
U372 WORD SORT process ASCII file
U377 NCOMM III more modem software + packer util
U380 UNICOPY fantastic disk copier
U399 FRACSCAPE V1.2 new fractal similar to VISTA
U400 SOUND TRACKER V2.6 music maker
U420 SPEED BENCH (not Wb1.3) create auto boot wb
U425 NIB 2 very popular copier
U436 The RIPPER COLLECTION(not WB3) lot ripper
U442 SYSINFO test & print info on your AMIGA sys
U444 FONT FARM font creator/editor/design new font
U457 WHOM 2 (3DISK) Detail/database on 51 films
U470 FINAL FONTIER 1 (2 disk) Star-trek magazine
U473 FINAL FONTIER 3 (4cdisk) Star-trek magazine
U480 HARD DISK CLICK-HardDrive menue system
U490 B-tec Util- Amazing pack with 207 utilities
U491 PROTRACKER V3-Best music writer programe
U492 WORK-STATION(2disk WB1.3 only)WB-replacement
U495 HARD DISK UTIL bril collection of Harddisk util.
U496 EASY PRINT (A500only) lot of print util
U498 WORK-MATE-15 brilant disk util compilation
U501 THE MUSIC CONSTURCTION KIT(state amiga own)
U504 HOT-STUFF-more util disk compilation
U505 VIRUS-KILLER & DISK RESALVAGE/REPAIRE KIT
U507 DCOPY V3 PROFESSIONAL -Excelent Disk copier
U509 ULT BOOTBLOCK 40+bootblock generator/maker
U510 ULTIMATE BOOT-BLOCK Collection II +more
U512 ZIRCON UTIL-30 MOST USE UTIL 2 brillant
U515 WIT COMPLETE UTIL 20 most use util

U521 SPECTRA PAINT III Very good paint packages
U550 SCENERY CONSTURCTION KIT fractal .recommend
U551 ASSASIN BOOT BLOCK over 50 bootblock protector
U555 CROSSWORD CREATOR (not WB3) crossword maker
U561 PERM CHECK a full POOL PREDICTION program
U568 ICON CONSTURCTION KIT icon making program
U569 ICON ready made (4 disk)
U590 A600 NUMBERIC PAD EMULATOR (A600 only)
U591 DEGRADER (not WB 1.3) A500 emulator
U592 KILL AGA-make older programe run on A1200
U600 C64 EMULATOR II util & document
U601 DISKSALV II + ABACKUP (not wb1.3)
U603 THE CHEAT COMPENDIUM for over 450 games
U620 HOW TO CODE IN C (2disk) + many examples
U622 ACTION REPLAY V1.5(A500/600)-cartridge on disk
U623 ACTION REPLAY V4 (A1200 ONLY) same as above
U645 PC EMULATOR V.2.31(WB3 only) SVGA PC emulator
U650 COPY & CRACK TOOL 2 more powerful copy program
U680 NEW SUPER VIRUS KILLER(not WB3)kill 316+ virus
U689 FORCASTER V2-horse racing predition program
U690 ASSASIN COPIER (lots)include Xcopy3/dcopy ect
U694 SUPER DUPER 3. (NOT WB1.3) Vfast disk copier
U696 AMITOOL PROFFESIONAL disk database tool
U699 MEGACHEAT V3 +(more games cheat even for)
U700 ANIMATION CONSTRUCTION KIT V1.2 + good
U702 V MORPH V2.create smooth morph animation
U703 POOL TOOLS 2(Latest)prediction horse racing.
U705 TRONI-CAD-best create circuit board+examples
U707 GAME TAMER(3&4)-(2)For even more games cheat.
U708 LAST WILL & TESTAMENT-write your will
U710 PERFECT-PAINT 32 Very easy to use paint package
U714 ENGINEER KIT various test kit for Amiga
U718 MAGNUM 1.9 REGARD the best disk magazines creator
U721 FONT FARM V3 + load of font + font viewer
U723 EXOTIC RIPPER rate as the best sound/graphic riper
U724 PARNET SET UP(2) require for the connection
U725 PARNET CABLE MAKER INSTRUCTION project save £££
U726 AREX MANUAL(notWb1.3) complete manual.
U729 ASSASIN BOOT UTIL 50 boot block creater util
U730 SOFT AGA (A500plus or A600) & min 1.5 meg
U731 A - Z GAMES CHEAT for over 500 games
U732 MINI MORPHS create TERMINATOR 2 effect
U736 AWARD MAKER II+hundred of ready made
U737 ASSASIN CRUNCH & COPY TOOL (WB 1.3 only)
U738 S.KICK PROFESSIONAL v3.2 Various K-start
U739 TURBO IMPLODER V3.1 powerful disk cruncher
U740 CROSS DOS 5.1 plus read/write PC<>AMIGA disk
U741 HD-DISK TOOL BOX +many more Disk util recommend
U742 HOW TO CREATE AUTOBOOT DISK,complete + util
U743 Util .Disk .Maker v3. MAKE AUTO BOOT DISK
U744 FRACTAL MANIA+BIOMORPH Brillant collection
U745 AF WORK BENCH (3)(WB 1.3 ONLY) replacement
U746 3D GARDEN DESIGNER & wiew from any angle bril
U747 ASTROMY V2 predict star planet prediction.
U749 DISK REPAIR 3(floppy & HD)include soft-proctect
U750 MUSIC CATALOGUE (not A500(1.3) very easy to use
U751 SYTEM CHECKER TOOL must for any Amiga owner
U753 HARD DRIVE UTIL+lot more Hard DRIVE UTIL
U754 PARBENCH installer (complete)
U755 PRO CAD electronic.latest circuit board designer
U758 WB MENU LAUNCHER-menu system, easy to use
U760 ICON PLUS (3DISK) Hundreds of stunning ICONS
U761 RELOCKIT 1.4 latest WB1.3 emulator
U762 FAKE FAST MEMORY make more older software run
U777 TELE TEXT RECIEVER project. highly recommend
U781 DOSTRACE V2. display infomation why some programe refuse to run. also moniter Amiga activity. RECOMMEND
U783 POOL WINNER GOLD must for all gamber
U789 HARD-DISK MEMORY V2 use HD as memory (re MMU)
U790 WINDOW BENCH V2 (WB 2/3) 2disk new workbench replacement, include lot of useful utilities
U791 COMPUTER DIAGNOSTIC TEST V9 amiga Fault finding

U800 PRINT A CARD include many ready made
U801 MULTI-PRINT V4 lot of printing util
U805 DISK PRINT print custom disk lables
U807 FONT & PRINT Load of utilities to wiew & prin your font collection. RECOMMED
U830 POOL WIZARD -(football) prediction
U832 DIVENDEND WINNER - Prediction rograme for use with LITTLE WOOD, VERMON, ZETTER Ect
U834 FORCASTER 2.02 New Horse prediction Prog
U839 AUDIO MAGIC 4-Proctracker V3,Exoctic ripper
U843 AUDIO MAGIC 8- Octamed player ect
U846 C64 emulator V3 (2DISK) C64 emulator/latest
U848 SPECTRUM EMULATOR V2- Spectrum emulato
U850 EAGLE PLAYER (2disk) the best music player
U851 DELI-TRACKER (2disk) play all music forma
U881 SONIC DRUM KIT V2 Mass drum sample
U882 DISK COPY Pack- collection of 10 disk copier
U883 OPTI-Utils 1-over 30 disk copier/Optimise ect
U885 INTUTION BENCH MARK V6.5 (Not Wb1.3) sys
U886 COMPLETE WB UTIL (2DISK) very useful U
U887 DISK REPAIR KIT 4-include disk repair, undelete,softproctect, diskmate, sysinfo,ect
U950 STEREO-SCOPIC V2.a (not A5001.3) This is the RAMDOM DOT STEREOGRAM generato
U951 FORTH PROGRAMMING (NOT WB 1.3)
U957 SCALA BACKGROUND (2disk) High quality im
U960 PROGRAME LOADER-New HardDisk menu
U961 MAGAZINE E 3(2disk) science fiction magazine
U963 AMOS & AMOS PRO COMMAND EXTENSION
U967 PRO-GAMBLE-Super Horse prediction program
U978 DELUXE PAINT 4 BUDDY SYSTEM-(2) Get the m out deluxe Paint instan on line for evry fuction
U981 VIRUS CHECKER V6.54 --AUTO UPDATE MO
U982 DIRECTORY OPUS V4 add Extra Command
U983 MAGIC WB & MAGIC MENU ..Both Latest versi
U986 VIRUS-WORKSHOP V5.1-the best Virus killer
U987 GRAPHIC-CONVERTER (2D) Convert picture
U988 TURBOCAT Auto catalogue your disk library
U989 AUTOBOOT DISK MAKER V4 -very useful
U993 IMAGINE STUDIO V2.(2D) The best PD image (picture) processor available rival even the commercial costing hundres of pound. (not k1.3)
U969 POWER-CACHES Speed up disk loading,Acce
U970 HARDDRIVE SECURITY II Large collection of scerity programe eg Lockout2,Password & many mo
U971 HARD-DISK & FLOPPY DISK DOUBLER (EpunotWB1.3
U973 CHEAT FOR 800 + GAMES, LEVEL CODE V3
U974 HD GAMES INSTALLER 2 install tops games EG.ZOOL2, Rise Of the robot,Mortal Combat2 & m
U975 DMS V2.04 Pro. Crunch entire disk. (not1.3)
U976 MAGIC SLECTOR V1.4-Change Magic WB ba
U977 MAGICWB ICON ARCHIVE (3) 1000's of MO
U998 X-PASSWORD-proctect your hard/floppy drive
U979 ICON ACHRIVE(3) 1000's of normal icon(any
U994 TEXTURE STUDIO. Render Various Texture for use with Imagine 3 ect req FPU.(not 1.3)
U995 PRO-GAMBLES V2 must for all gamblers.
U996 BOOKIE BEATER- gambling programe to win
U997 HD GAME INSTALLER 3. install more game
U998 EXOCTIC RIPPER V3.b Latest ripper
U999 HD MEMORY (new collection) require MMU
U1000 MAGIC OPUS VOL 2 & 3 (2D) more Dopus b
U1001 CAR DATA ANALYST-check your car perform
U1002 TURBO CAT-(WB 2&3 only) catalogue creator
U1003 LOTTORY WINNER V2-new version
U1005 BASIC-ELECTRONIC-Teach all about eletro
U1006 LOTTO LUNACY V2 Update latest lottery pre
U1007 ALL NEW HARD-DISK & FLOPPY DISK TOOL
U1008 HARD-WARE PROJECT 2 (2) Build dozen of project even how to fit Amigas in a tower case
U1009 DATA ALERT 3-explain why your computer
U1010 WB2.04 INSTALLER-install A500+/A600 to HD

PUZZLE GAMES II

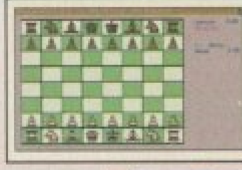
Massive collection of the best puzzle games ever released including some of the classics like Nubic Cube, Picture Puzzles etc, much too many to list. Very popular.
5 disk pack only £4.99



ARCADE GAMES II



COLLECTION OF THE VERY BEST SHOOT EM UP
MUST FOR ANY GAMES PLAYER
5 disk pack only £4.99



BOARD GAMES II

The very best board games ever released. This pack contains the very latest, CHESS, CHECKER, SCRABBLE, MONOPLY & DOMINOES recommended.
5 disk pack only £4.99

Printer Pack

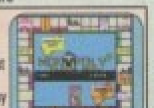
5 disk pack with all the latest printing prog... specially designed for printing out high qu... documents, text & pictures etc and it is even... to print out A5 Booklets (very handy). Easy to...
A must for any Amiga owner with printer
Printer Pack (5 disks) only £4...

GAMES

G222 MEGA 21 GAMES amazing 21 games
G235 DRAGON-CAVE brilant 3D puzzle games
G240 QUADRIX very addict excellent
G242 TAKE EM OUT like to Operation wolf
G253 DESTINE MOON BASE Arcade conversion
G272 TANK BATTLE 2 player tank battle game
G278 ARCADIA the best ARKNOID clone
G300 Q-BOID cross TETRIX and INVADERS.
G303 DIMENSION X 2 player LIGHT CYCLE GAME
G310 NEBULAR Excellent 3D shoot em up
G316 GALACTIC Excellent 8 levels arcade
G317 HYPER-BALL Speed ball +level editor
G320 GHOST-SHIP Very good 3D adventure
G325 BATTLEMENT hunch back of notcha
G326 MEGA GAME COLLECTIONS III 3 top games
G329 MADONNA NUDE PUZZLES for 18+ only
G331 GRAVITY massive space exploring game
G333 CYBER-NETIC Brillant 8 way blaster
G334 DONKEY KONG -(A1200 order code AGA296)
G335 CRAZY SUE II- best platform to date
G342 SUPER SKODA CHALLENGE (& track editors)
G344 STAR-TREK similar to RAID2 but harder
G355 DOODY very cute & extremely addict
G356 WONDER LAND amazing graphic recommed
G362 DELUXE PACMAN + best pacman ever release
G367 CARD GAMES collection
G368 WIZARD-DOMAINS-dugeon type games
G370 KALATRIZ (notA1200) arcade tetriz clone
G373 AIR ACE II Very playable shoot em up
G384 OTHELLO best PD version
G386 MOUSE IMPOSSIBLE very addictive puzzle
G390 TETREN most polish Tetriz ever release
G392 STRIKEBALL brilliant base ball clone
G399 TRAILBLAZER brillant (not A1200)
G400 FIGHTING WARRIOR like street fighter
G404 DOMINOES only one of it kind on PD
G406 TOTAL WARS -strategy like chess in space
G411 BATTLE CAR 2- 3D car racing
G431 NESTER CARD GAME- hours of fun for a quit.
G435 ROULETE amercan roulete excellent
G438 TRAILBLAZER 2 C64 conversion
G441 E-TYPE 2- very good asteroid great graphic
G443 OLEMPIAD DISK (2D) Olympic sport events
G445 DESCENDER GAME tank, search & desender
G446 OBLIDOX excellent Arcade/Puzzle game
G448 PARACHUTE JOUST quite playable
G455 CASTLE OF DOOM VG graphic adventure.
G460 WIBBLE WORLD GIDDY Large platform game
G467 CASH FRUIT- good fruit machines
G478 AMOS CRICKET cricket games
G488 EXTREAM VILONCE 2 player battle out
G489 ENGIMA MACHINE very challenging puzzle
G490 MEGA BALL 2 very playable break out clone
G491 BOUNCE & BLAST brillant platform 10/10
G492 ZOMBIES & DEFENDER 2 fantastic games
G494 MERCANERY SIMULATION 3D wars games
G499 LIFE -simulation very interesting
G500 TRANSPLANT dozen of level fast arcade.
G501 KLAWZ THE KAT-great platform games
G511 HIGHWAY HELL like SPY HUNTER on the C64
G531 OPERATION FIRESTORMS-brillant
G534 CASTLE KUMQUAT similar to Allen breed
G535 BLACK DAWN brillant graphic adventure
G538 MORIA 5.4 The latest Dungeon & dragon
G539 BRIDGE Good version of bridges
G540 ORK ATTACK bloody adventure

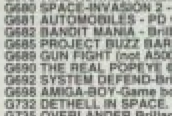
101 GAMES

PRICE ONLY £9.99
Brilliant collection of over 100 of the very best of PD games includes INVADER 2, Tetris, Monopoly etc. Much too many to list. Very easy to use menu system. Most games come with full playing instructions



All games are selectable from an easy to use menu & most games come with full playing instructions
COMPATIBLE WITH ALL AMIGAS

G541 REBOUNCE 2 player futuristic breakout
G542 ROAD TO HELL brillant car racing
G544 SUPERTOM CAT New vertical shoot em up.
G545 KUNGFU CHARLIES mix with platform brill.
G546 RAID 4 latest vertical scroll shoot em up
G546 QUIZMASTER very good quiz programe
G552 ELEVATION games base on lift ??
G560 IMPERIAL WALKER -Base on STAR WAR games
G567 STARBASE 13 (2D) Bril like MONKEY ISLAND
G657 AMOS LOADSA MONEY best FRUIT-MACHINES
G659 MR MEN OLYMPIC (2D) many event to complete
G660 4 L.C.D DREAM 4 small hand held games
G664 NEIGHBOUR GAMES (2D) base on the TV series
G665 TIME RUNNER (WB2/3) Brillant graphic
G667 GOLF (2DISK) One of the first & decent GOLF
G668 AMOS CRICKET 2 New Amos cricket simulator
G669 MUGGY REVENGE gangster graphic adventure
G672 JIGSAW (2DISK) very playable jigsaw games
G673 BOBBY GARDEN + DIGGER (NEW) Brillant
G674 HIGH OCTANE Fast car racing (notwb1.3)
G675 TIME RUNNER amazing graphic adventure
G680 SPACE-INVASION 2 - Fantastic Galaxain
G681 AUTOMOBILES - PD version of SKID MARK bril
G682 BANDIT MANIA - Brillant fruit machine demo
G685 PROJECT BUZZ BAR -Brillant asteroid
G689 GUN FIGHT (not A500(1.3)
G690 THE REAL POPEYE 64 (a500 1.3 only)
G692 SYSTEM DEFEND-Brillant Defender clone
G698 AMIGA-BOY-Game boy emulaor + tetriz
G732 DETHELL IN SPACE. Recommed.
G735 OVERLANDER Brillant arcade MOON ALERT
G737 SERIOUS BACKGAMMON The best in PD BG
G771 STAR WOID (2 Disk) brillant Thrust
G772 UN-SENSIBLE SOCCER very similar to Sensible scoccer games. RECOMMEND



All games are selectable from an easy to use menu & most games come with full playing instructions

101 GAMES 2

PRICE ONLY £10.99
This is the very latest all new 101 games compilation pack 2 containing some of the very best in PD games like Zeus, Wonderland, Dragonflies etc. Much too many to list.
COMPATIBLE WITH ALL AMIGAS

G773 FRUIT MANIA -Brillant Fruitmachine.
G774 TRICKLE TREAT -like DOOM on the PC
G775 FOOT-BALL MANAGER-new version
G782 SOLO ASSAULT 3D like Wing Commander
G783 SEED OF DARKNESS-Brillant graphic adven
G784 NANO FLY Superb explore game RECOMMEND
G785 THE GREAT GOLD RAID- very addicted
G787 ANT WAR V1.9 (LATEST) not 1.3
G788 ZENO-MORPH -Great grahic
G789 TASK FORCE very good MIND SHADOW clone
G790 GREEN FIVE Amazing 3D graphic like
G791 PROFFESIONAL BINGO CALLER
G792 MARTIAL SPRIT like Street fighter II
G798 6 EXCELLENT CARD GAMES collection
G809 BLITZ 2 fast action shooting games
G810 EXIT 13 Brillant puzzle
G811 TEMPORAL MISPLACEMENT-graphic adventure
G812 ADAY AT THE RACE-V.Goodhorse racing games
G820 BOULDER ORIGINAL with 80 level
G821 BOULDERDASH cave/level Construction kit
G822 BOULDER COLLECTION 2/3 160 level (2disk)
G839 BOULDER PACK with 640 level on 8 disk
G860 ALIEN NET WORK-new Spacing invader
G862 BATTLE FORCE excellent text adventure.
G863 GNU CHESS the best chess with 10 level
G868 SWORD OF YIGG Graphic adventure
G867 POWER-TETRIZ for 1 or 2 player
G868 SUPER SMASHING TETRIZ
G870 CHESS II & CHECKER One of the best around must for all CHESS or CHECKER player
G871 GRAVITY FORCE 2 1 or 2 player thrust clone

G872 SCHNEBITZ Commercial quality puzzle games
G875 DELEXE GALA v2.3(new) add new feature & bouns gamme + 2 player RECOMMEND, get it now
G876 THE KRILLIAN INCENDENT like ELITE2/Epic
G878 QUANTUM-Maze colect & escape type games
G879 RAG TO RICHES - like MONOPLY

NEW 101 GAMES PK 3

New 101 pack 3 contains over 100 games, runs on all Amigas, only £11.99 offer buy any 2 packs together & receive a free £4 token for use with next order. This offer cannot be used with any other offer current & subject to condition apply.

G884 WIPE OUT-mindless blasting game
G885 GODZILLA Another shootem up
G886 SUPER MEGA FRUIT- All new Fruit Machine
G888 DRIVING MANIAC 3D (fill vector like Indi500) car racing- very fast. RECOMMEND
G889 PLANET FALL - Luner Lander clone
G891 BUCK TOOTH ADVENTURE Very good multi level shoot/collect em up RECOMMEND
G892 PENGO 2- Maze type games. Recommend
G893 SUPER OBLITERATION Blast asteroid very similar to PANG 2 lot of weapon RECOMMEND
G894 SUPER INVASION II -New SPACING INVADER
G897 THE SHEPERD Brillant POPULUS clone. REC
G898 ALIEN GENOCIDE (2) Shoot aliens set in space.
G899 PUCKMAN. One of the better PacMan arround.
G900 SUPER-BATTLE ZONE.3D (not WB1.3)
G901 M*A*S*H a (ANTWAR 2) play very similar to LEMMING & WORM, with load of Weapon (Brillant)
G904 LAST SOLDIER (2) multilevel platform games
G905 CBBERTECH (2) exclient ALIEN BREED Clone
G906 HANGMAN any one for a game?
G907 ACE SPACE nice Platform games
G908 COLOURMANIA slide/Klatriz type puzzle games
G910 HARRY-HADDOCK- Brillant platformer games
G912 MANGLE FENDER -Brillant, Smash up other car/tank ect to win, extremly addicted, get it
G913 ARCADE GAMES CLASSIC Vol 1 & 2 (2d)
G914 HELICOPTER-play like Desert strike
G915 COW WARS. Very addicted 2 player games
G916 ISLAND -Play like Monopoly.
G919 COP THE LOT Pro Latest Lottery preditor
G920 LOTTERY PROFFESIONAL This version use
G921 MONOPLY. (board games) The best version
G922 JET WILLY 3 - excellent platform games
G923 FLAMMING ENGINE-Superb car racing
G924 POWER MACHINES. Graphicaly brillant shoot
G925 SUCIDE-MACHINE Operation wolf style
G926 ZAXXON 3D Superb C64 3D blaster games
G927 BOING V3. Great platformer. recommend
G928 PUNTER-Animate horse racing games
G929 ARCADE JIGSAW (2d) include LION KING
G930 WHEEL CHAIR GLADITOR-Very fun to play
G931 NIMBLE-Brillant New arcade puzzle.
G933 BLACK DAWN 3- THE NEW BEGINNING (2) Superb 3D adventure. RECOMMEND
G934 R3 ROCKET (NEW)very good rockets games
G935 BATTLE SHIP- the finest PD version
G936 LAST LAP - Fast car racing

GAME HINTS & CHEATS II

Play your favourite game for age? but can't get to the end of level or game? Having problem with some games? 5 disk pack with 1000s of games cheat/help/level code action replay poke etc., should help you finish many games - suitable for all Amigas only £4.95.
Update & release on 28 July '95

EDUCATION

E001 KID PAINTS. superb paint special for kids
E002 COLOUR IT brillant computer colouring book
E003 TREASURE SEARCH find the hidden treasure.
E004 LEARN & PLAY (not A1200)many maths & games
E005 LEARN & PLAY II more education programes
E006 SPANISH TRANSLATOR Spanish<> English
E008 MR MEN (WB1.3only) brillant story adventure
E009 ASTROMY tutorial on solar/star ect system
E010 SIMON & SPACE MATHS maths & simon games

E011 EDUCATION PACK 1

pack with dozens of education programs ranging from maths, science to educational games recommend suitable for any Amiga. 5 disk pack only £4.95

E019 DINOSAURS teach you all about Dinasaour
E020 WORLD DATABASE require (2+meg)
E021 STORY LAND II interact puzzle games rec
E022 LANGUAGE TUTOR teach you 4 language
E023 TALKING COLOURING BOOK talking Dpaint bril
E024 EASY SPELL II improve your kid spelling
E025 SCRABBLE require 2-4player. brillant
E026 WORDS can help you solve the crossword
E027 OSWALD Very colourful large cartoon game
E030 EVOLUTION breed your own hybrid
E031 IQ TEST + IQ GAMES pack 1 excellent
E033 TYPING TUDOR very good typing tudor
E035 CHESS HELPER help/teach how to play
E036 BASIC TUDOR learn about Amiga basic Prog

EDUCATION & 21 GAMES PACK

Collection of the very best of education programs and a 21 games pack, a very popular combination for kids (run on all Amiga) 5 disks pack only £4.95

E038 AMIGA TUTORIAL 7 part tutorial
E039 COMPUTER CARE how to care about AMIGA
E040 GUIDE TO LOWER BACK PAIN tutorial the spine & how to avoid back pain. (recommend)
E041 KID ALPHABET display all alphabet letter
E042 FRACTION & SILOUEST maths & games excellent
E043 MATH MASTER teach/test you more on maths
E044 STEAM ENGINE V2 graphic & tutorial
E045 PETROL ENGINE tutorial & animate graphic
E046 GAS TURBINE ENGINE tutoria & anim graphic
E047 STIRLING ENGINE tutorial & anim graphic
E050 DREAM FOR ANGEL explain the meaning of dream
E051 INVISIBLE WORLD brillant recommend
E052 FISH TANK turn your amiga into a FISHTANK
E054 DEMOLITION MISSION simple game for kid
E055 WORD POWER solve crossword puzzle ect good.
E056 WORM HOLE simple game ideal for children.
E057 APPLE CATCHER catch falling apple brillant
E058 CROSS MAZE & CRYPTOKING 2 excellent kid games
E059 VERB QUIZ find the word & it related. Bril
E061 KING JAMES BIBLE (4d) complete bibles excel
E066 TARROT clairvoyant in a instance
E068 GALLOW fancy a games of hang man?
E070 MATH DRILLS teach all basic math skill Vgood
E071 ERROR INFO give info why your amiga crash
E075 WORLD-WAR 2 graphics tutorial on WORLD-WAR releate program eg simulate Starprobe/ molecube/ ect
E076 SCIENCE an excellent collection of science ideal for all who interesting or studies in science recommend, this pack come on 4 disks
E080 KIDPRIX great children paint programme.
E081 ASTROMY PACK- This is a mazing collection of programe relate to astromy, can help to locate certain or star position ect, must for anyone who studies astromy or hobby. great (4DISK)
E073 PICTURE & LETTER learn to reads- first step
E074 AMIGA BEGINER GUIDE tutorial on Amigas
E085 NODDY PLAYTIME demo >Very good
E080 KID PIX more excellent paint programes
E081 D.T.P FOR KID easy to use, excellent
E092 SING A RYHMES sing a song
E094 HIGH WAY CODE TUTOR question on highway code
E096 READ & LEARN (2D) THREE LITTLE PIGGY Story
E097 BACK TO SKOOL vol 1 collection of the best
E098 BACK TO SKOOL vol 2 in education programe
E099 BACK TO SKOOL vol 3 & games. RECOMMED

E100 LITTLE TRAVELER infomation on world wide
E101 WORLD GEOGRAPHY world with map & test.
E103 DISCOVERY OF THE ATOM. tutorial on the Atom
E104 DESK TOP GUIDE TO MUSIC(3D) guide & tutorial
E107 TRUMPTY FIREWORK ALPHABET Very entertai way to teach your child the ALPHABET
E108 HOW TO DELOVOPE PHOTO 1 (2) Excellent
E109 MR MEN OLYMPIC (2D) many event to complete
E110 CULT TV DATABASE (2D) Info on early TV series
E112 HOW TO DEVELOPE PHOTO 2 (2) delevope you
E115 ELETRONIC WORLDS(3D) Complete KJames B
E116 HOW THE EARTH BEGAN-theory how the BIG B explode and create all the star & galaxy
E118 WORKBENCH 2 tutorial on Work Bench 2
E119 DINO WAR Quiz on dinosaurs
E120 JUNIOR MATHS Great learning aid for teach kid on the math subjects. RECOMMEND
E121 PICTURE PUZZLE brillant JIGSAW type games
E122 WORD FACTORY Brillant, teach kid words

KID DISKS 1,2,3,4,5

Excellent collection of education programs. Ideal for teaching kids various subjects while retaining the fu & game element. 5 disks only £4.99 or order seperat for only 99p per disk. Order Code KID DISK & No. 1

E125 JURASSIC PARK lots of info on dinosaurs
E126 CHILDREN SONG 2 contain 5 excellent song
E127 MING SHU (A500 only) Bril Chinese Astrology
E128 ASTRO 22 PRO.V3-The latest astrology program that accurately calculates the position of the planet, eclipe, zodiac position etc. Recommend
E130 FRENCH VERD TESTER should help you with
E131 CULT TV DATA BASE II (2 DISK) info on early TV
E132 WORLD HISTORY BOOK
E133 LITTLE TRAVELLER II (2) Infomation on world
E134 X-FILES-Guide to the TV series very interesting
E148 CHESS & TUTOR - FULLteach you how to play
E150 INTERNET-FULL guide to internet & superhighw
E161 CLI & SHELL TUTOR (help) Ideal for beginner
E162 DELUXE PAINT GRAPHIC TUTOR V 3 & 4 RECOM
E163 JAPANESE - teach you the japanese language
E164 PAINT IT (not A5001.3) latest COLOURING BOO
E165 KEY BOARD TRAINER An excellent typing tuto
E166 WORD POWER- spellcheck/crossword solver
E168 CROSSWORD CREATOR-design crossword
E169 CHESS II & TUTOR brillant Chess II games
E170 HISTORY OF AVIATION Vol 1 Excellent disk
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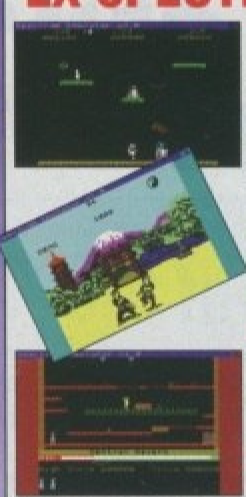


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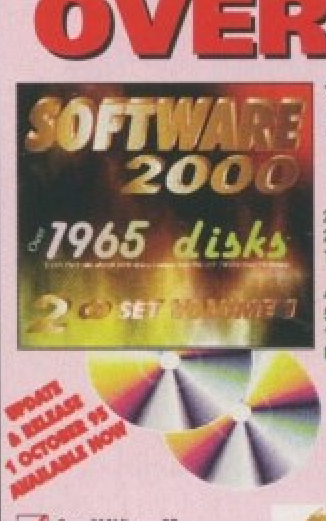
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AGA425 MYSTIC DEMOS(2) 95 excellent demos
AGA426 ORIGIN 2 (2 DISK), Amazing

⟵ SEE PAGE 1 FOR MORE SOFTWARE FOR YOUR AMIGA

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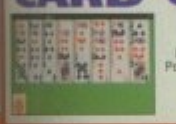
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U357 NON APPETIT DATABASE many receipt.
U364 HOME ACCOUNT-Account program
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X97 HOT BABE 2
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QUESTIONS & ANSWERS

I have had an Amiga since the OS 1.2 A500 and would never think of leaving the platform. I also have a Pentium PC which, funnily enough, cost me less than my A1200 setup.

Anyway, to the point of my letter. I read just about all the Amiga magazines that have any serious content and am sick and tired of reading sad letters from whining Amiga users about Escom, AT, software houses, PC and Mac users, etc. and how they are all out to get the Amiga or how the Amiga isn't supported properly.

Then you get the 'lemon heads' (sour faced) going on about how the Amiga multitasks better than any system built. Remember, you can only multitask as far as your physical RAM permits without an MMU. It's great being able to multitask, but if your machine slows to a halt to do it, it ain't much good.

So, I would like to ask a couple of questions and answer a few:

1. Why did we lose the best bits from OS1.2, i.e. no borders around icons, diskdoctor, NotePad, PM (performance monitor), memory map, the graphical tutor (The Very First, if you remember it) and Say?
2. Why do we slag off DOS and Windows 3.x so much when they at least come with Virus Scan, Defrag, ScanDisk, move, Compressed backup, disk doubler, file manager, word processor, card file, Paintbrush, media player, sound recorder, Terminal, on-line help, unformat, undelete, proper sounds, object linking (OLE), extensive printer drivers and a proper clipboard as standard?
3. Why do we say that the Amiga is the only system that can be used straight out of the box? Have you ever tried typing a letter on a TV screen? If you have, I'll be surprised if you can now read this. The Amiga is only good for games out of the box, you need a monitor for any sort of serious use (standard on a PC, you don't even get one with the £2000+ A4000).

Now, here are my answers to some questions:

Q. Why don't the software houses write any decent software for the Amiga any more?
A. Because you are so tied up slagging off other platforms and 'How they spend so much on upgrading their systems to run the latest software and how great my standard A500/1200 is'. Try and run Scala or Gloom or load a Jpeg, etc. and see how easy it is. If only you lot would wake up and expand/upgrade your systems (A500/600s are dead), then maybe the world would take note.

Q. Why do people think of the Amiga as a games machine and not a serious PC?
A. Because just about every user/mag spends most of its time reviewing games (look at the adverts for the Amiga Magic bundle and what do you see – games!), and going on about competing with the console market, etc. The A1200 doesn't even come with a hard drive or monitor as standard.

Q. Why don't PC mags mention the Amiga?
A. Because they don't care (they do mention Macs). If you lot would build up your machines and stop slagging off other platforms, then the software houses would be back in droves and we would have a platform that could compete.

This letter is dragging on so I won't write much more. You probably think I am a PC convert and you wouldn't be far wrong, but I love my Amiga just as I love PCs, Macs and just about all other platforms – don't knock them until you have tried them.

The thing is that if we only stopped griping and whining we would soon see that we need to tell the world we want to move on, so it can help us. Imagine Netscape, Word, Lotus 123, etc. on the Amiga. It can happen if we want it to.

Finally, sorry there's no 'great mag' and all that, but you don't need me to tell you what you already know.

Kevin Anderson, Waltham Abbey

A combative stance there from Kevin, and one I think a lot of people in the Amiga community now share. Unfortunately, it often seems as though the people who were upgrading their machines are now the people who have left the Amiga and gone onto the PC, or other platform, while those that never spent a penny on their machines now form the main body of Amiga users and can be justly accused of being moaning minnies.

I have had people telling me that they are disappointed that their favourite Doom clone only runs sluggishly on a quarter screen on their machine, but when I ask about an upgrade, they shrug it off as being too expensive to play games. Any Doom game is going to be expensive – a lot of processing power is needed to generate all those 3D graphics – but people would rather bemoan the fact that AB3D2 is too slow, or that Breathless looks rubbish.

esp

Keep your letters coming in to **Ezra Surf** and you could be a fifty pound prize winner



Keep those letters coming! If you can't be bothered to find a bit of paper and a stamp, why not e-mail us? Simply point your mailer to: ESP@acomp.demon.co.uk There's a £50 pound prize for the best letter printed as an incentive

EXCUSES, EXCUSES

I would like to make two observations arising from articles in the March issue. Firstly, with regard to the article on piracy, any person that uses the cost of games as an excuse to buy pirated games (or indeed any software) is being a touch cheeky. The quick answer to this rather lame postulation is to wait for a while and the price will almost certainly fall to a lower level.

I waited until both Eye of the Beholder 1 and 2 were at £13.99 instead of £30 before making a purchase, and the games themselves did not diminish one iota in the meantime. The same can be said of more recent games as well, both Gloom and Alien Breed can now be bought for under £20 and neither can be described as expensive at this price. I have purchased them both from Special Reserve Mail Order at £19.99 and must say that they are a bargain. Most game prices will fall after the initial release to a very acceptable price, so let's have no more of this 'games are too expensive' crap.

My next point arises from the review of the PD effort Deluxe Pacman A1200 and the comment that the programmer deserves the fee he asks for. I agree with this and indeed I did so back on 13 December last year when I sent the required fee (by registered post) for the registered game with its extra levels, etc. to Mr Vigdal. I then heard nothing for two months, so sent a letter to Mr Vigdal asking for confirmation as to whether he had received my payment or not. It has now been over a month since I sent my last letter and, as yet, I have had no reply. Even allowing for the shortcomings of the postal service (*which are few and far between – Ed*), this is a sad state of affairs.

All things considered, I would be reluctant to send money to another PD programmer in light of this experience and would urge all programmers to honour their commitments if they wish to continue with their trade.

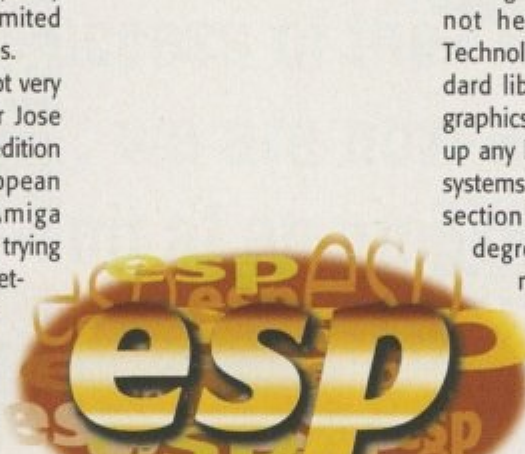
Neil Adams, Cromer

I guess it's a bit like the conversation you can have about books. Do you buy the hardback for between £10 and £20, or do you wait for the paperback version to come out at half the price. I know most of my book collection is softback, but then I suppose there isn't the hype over new books that there is over new games. As for PD programmers, the vast majority, in my experience, are extremely quick to reply to any mail or e-mail and are very happy to receive any sort of payment for their program, so I wouldn't let one bad experience put you off.

BETTER SOLUTIONS

I have been reading your magazine's US edition since the demise of Amiga World here. I have been impressed overall with the quality of your magazine, even with only limited coverage of goings on here in the States.

I must admit, however, that I was not very impressed with your response to Mr Jose Ferreira's letter in issue 7 of the US edition (that's issue 96 – February for European readers). While I agree that Amiga Technologies is facing an uphill battle trying to convince users that the Amiga is a better choice for them than other computers on the market, I very much disagree that this could be accomplished by making future versions of the Amiga more like other computers.



I cannot vouch for the European market, but I do know that if the new PowerPC-based Amigas are not better at processing graphics and animations than Windows or PowerMac systems for the same cost, it will fail miserably in the US. I am so certain of this that I am willing to put money on it right now.

You might disagree with me, but removing the custom graphics chips from the system to make way for a slower PCI bus graphics solution hardly seems like an advancement for the Amiga architecture. Adding third-party graphics confusion would not help the situation, unless Amiga Technologies very carefully wrote the standard library routines that these proposed graphics cards used. If you doubt me, pick up any box for a game written for Windows systems and read the system requirements section of the cover. If you don't have a degree in computer systems management, don't expect to understand what you are reading.

A much better solution would seem to be redesigning the custom chips and placing them on the system bus, with a slot added to the motherboard for an upgrade card as better versions of the chip become available. This would probably be similar to the CPU slot on the A3000/4000 machines.

As for the idea that the A1200 currently is a good bargain, again I cannot vouch for the European market, but here in the US it should be possible to put together a 486DX2 66MHz system with 16Mb RAM, 64-bit SVGA graphics (VLB), a 1Gb hard drive, a 16-bit sound card and Windows 95 for only slightly more than an A1200 with a 130Mb hard drive (less than $100 difference if you shop around). You might have to assemble the system yourself, but at least you would have a decent idea of how to fix it if it ever broke down. You would also have the advantage of a larger software base to choose from. It might not be the killer graphics system that an A4000T is, but it would be considerably less expensive and more versatile overall.

Apple Computer has recently discovered the problem with trying to market cheap, low-end computers in a high-end market by posting a $68 million loss for the last quarter of 1995. Apple has mostly blamed this loss on expecting the Macintosh Performa line to be the better selling system during the Christmas shopping season. In fact, they are now backlogged on orders for their A/V PowerMac systems and overstocked on their Performa range.

For many people a Windows-based computer is probably better than an Amiga as they will be certain to have support for their computer for some time to come, and seldom have to worry that they will only have

RENEWAL QUANDARY

I recently received notice that my subscription to *Amiga Computing* is due for renewal. AC is a fine magazine – no question about that – but I am most hesitant to renew. Why? Because in several past issues, columnists and editors have urged readers 'to support Amiga product dealers, especially during this difficult time of transition between the demise of Commodore and the establishment of Escom.' I think that you, as *AC*, need to know what's happening 'out there' with such dealers.

I own an Amiga 500 with 1Mb RAM, one external floppy drive and an A570 CD-ROM drive, but no hard drive. Obviously, I need to upgrade in order to utilise most of the software products reviewed in *Amiga Computing*. But I do not know enough about upgrade items such as additional RAM hardware, hard drives and interfaces listed in the ads of the dealers. So I wrote a letter in mid-November asking the folk at Software Hut, Sharon Hill, PA, which of the upgrade units listed in their ad would fit my machine. My intention was to order such items once I received the needed information. This would have amounted to a sizeable order.

To date, I have received neither a reply to my letter, nor the letter itself returned by the Postal Service as undeliverable. (In other words, I must conclude it has been ignored.)

Other dealers have been about as unhelpful as Software Hut. So where do I have to go for upgrade hardware? No dealers near here; I would have to order out of the area. How do I support dealers like that?

Sure, I could use the telephone to obtain the needed information. But do you like paying long distance charges for 20 or 30 minutes of being on hold until you give up in frustration? I am not about to use the phone any more.

Most of the information reviewed or published in *AC* is for units of greater capability than mine. So what good is that information to me right now? The last reason for my hesitancy is not crucial, but I mention it to complete the picture. The crucial reasons are the obvious uselessness of the adverts since dealers are apparently not too interested in selling Amiga products – at least not the ones needed to upgrade an A500. And crucial, too, is the uselessness of information and reviews for products which will not work on the A500, so for all practical purposes, I have been shoved out of the market.

I have decided to wait and see what Escom do. Wait and see if the Amiga does, indeed, make a comeback. I do like my A500. But if I can't obtain needed hardware or information, why should I buy a magazine which will only add to my discouragement as I read it and realise that none of it is for me.

I would welcome a comment or reply. If I don't hear from you, I will add *AC* to the same list on which I have put Software Hut and their kind. If in the future, I find a practical use for *AC*, you will hear from me. And I do thank you for the service I have received from your branch of IDG.

Wilfred L Ziekert, Branson, MO

While I sympathise with your attempts to contact Amiga dealers to help you upgrade your machine, I think the general consensus of any dealer hearing your tale of woe would be that you would probably save yourself a whole heap of cash if you just put that ageing A500 to one side and bought yourself a new or second-hand A1200 with a hard drive. You would need to replace that A570, but other than that you would have a far superior machine to the one you currently have, even if you do manage to find the remaindered upgrades that are still out there. You would also then have a use for 95 per cent of the material we publish in *AC*, and have a pretty decent home computer to boot.

ONE WORLD

As an Amiga owner, I feel I have to point out that not only is the Amiga going down the drain, but so are Macintoshes, Archimedes and every other independent platform. With the might of Microsoft behind it, can it be long before the only machine anyone will be able to buy will be a PC clone and Windows 95, 96, etc.

This will surely be the end of computer civilisation because with only one producer of software still existing, having bought out everyone else, Microsoft will be so huge it will take them forever to produce new software, and they will only want to make programs for the PC. Many companies who produce innovative software for other platforms have been absorbed into the Microsoft monster like Blue Ribbon Bakery and Wavefront, and where are their products now? You'll probably see them again under a different name with the same bland Microsoft interface and with features you have to pay extra to get over the Microsoft Network which will drive the Internet underground because everyone will have it as standard on their machines.

Barry Mangon, Chingford

Microsoft are now in a position where they not only control the operating system of the world's most widespread platform, but also produce the major software packages. We can but hope that market forces will stop Microsoft from taking over the entire range of computing products before it's too late.

one dealer in town (if that) who might go under at any moment. In all of Silicon Valley I have been able to find just one Amiga dealer, and they seem to be phasing out their Amiga stock. Even small towns in California usually have at least one place where people can get Windows software.

If Amiga Technologies expect to survive in an American computer market, they will have to build a computer that can handle graphics and animation significantly better than other computers on the market, and do it at the same price. This is what the Amiga has always been best at, being a cheaper solution to an SGI Indigo series, not a Mac clone.

I have owned an A3000 almost since they came out and quite admire the little machine's powerful graphics abilities, but if Amiga Technologies think they can convince me to purchase a PowerMac clone with an obscure operating system and a small software base, they had best rethink the situation.

Edward K. Smallwood, Scotts Valley, California

I hate to pick you up on some of the more contradictory statements you have made in your letter to us, Mr Smallwood, but we really need to settle the issue. First you ask for Amiga Technologies to redesign the Amiga graphics chipset to be better than the current standards for the PC, and then you deride the A1200 for only being marginally cheaper than a 486. The reason the A1200 is so expensive now is purely because of its custom chips. If it used a cheap VGA chipset, I'm sure the cost could be practically halved when in conjunction with other, more standard, parts.

'Adding third-party graphics confusion', as you say, will be the only way the Amiga will be able to catch up with these other platforms. After all, how long do you think it would take to design this killer graphics chipset? The people who work for companies like Cirrus Logic, Trident, Diamond and others have spent the last six or seven years purely concentrating on graphics chipset design. You then say that the A4000T has a killer graphics system, when in fact, it is no better than the A1200's and falls far short of any current VGA chipset. In short, the best thing the Amiga has going for it is its operating system, and it is this that drags its graphics kicking and screaming into the '90s and gives it some sort of edge over the competition.

In my opinion, the only way the Amiga can survive is as a top-notch multi-platform operating system that offers proper multimedia functionality for programs like Scala, etc. on any platform. AT could still make machines, but they should license any custom hardware to other companies who would then be able to make more specialised machines for specific purposes like video editing, network computing, POI displays, 3D modelling and the like.

The only way to do this is to make sure the OS can handle every eventuality in terms of libraries for graphics, sound, and pretty much every other operation that can be updated or even replaced by individual manufacturers. There is still an awful lot of work to do to achieve this, but Amiga Technologies have made a start and I can only hope, for all Amiga users' sake, that they succeed in their endeavours.

MY SISTER WAS ONCE BITTEN BY A MOOSE...

Hi, I'm a 20-year old Amiga fan who is going to buy the forthcoming A1200+ in summer/early autumn this year. This new machine is believed to be powered by the new Motorola Coldfire hybrid Risc processor with user-accessible SIMM sockets on the motherboard and should be bundled with a Plug and Play Internet bundle. Do you have any further information on the A1200+ and what its features will be?

I really hope the A1200+ will be a world beating machine with a new Workbench and Kickstart on flash ROM for easy upgrading. It could even be called Workbench 96!

Ditching the AGA chipset and going for an emulation of it in a VGA-type system would also be a good idea because it would allow for easy painless upgrades, for example to 24-bit graphics, 16-bit, studio quality sound with more channels, 3D manipulation and more.

Why not ask AT to sign a deal with RBF software to bundle the forthcoming OctaMED pro Soundstudio package and include the complete set of high quality samples from Walkabout Music with the A1200+? Including the new Doom clone 'Breathless' in the A1200+ bundle would also be an excellent idea, and all at a low price!

Helge Kvalheim, Flaktveit, Norway

Nice to hear from our Norwegian readers. If you've read last month's piece on CeBit 96, you'll know a lot more about the A1200+ or Walker, as it is known in development. It is unfortunate that the ColdFire processor hasn't been used for the new machine, but at least it is a whole lot faster than a base A1200. As for Workbench, it would appear that it will be updated, but perhaps not as much as we would all like for this machine. The idea of having Kickstart on a flash ROM might also be scuppered by the fact that Kickstart will now require a 1Mb ROM to sit in, and flash ROMs of that size might be extremely expensive.

Still, it's a start on the way to the PowerAmigas of next year and we can all hope for an Amiga renaissance!



ANCIENT HISTORY

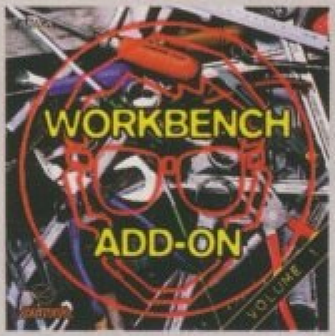
I was rooting about in a little used cupboard over the weekend and discovered a book entitled 'Choosing and using your home computer, an introductory course.' It was published by Orbis in 1984 and to be honest I have never before read it in any depth. Fascinating stuff, mostly basics about what and how to do it, as you would expect, but some of the comments make fascinating reading in 1996, particularly in context with the on-going Amiga vs. PC saga.

There is an early comparison between various models with a graph showing how the price of 'the micro' has fallen since the Apple II which in 1978 cost £995, down through the various machines until the Commodore 64 which was quoted as 'Approx. £200' in 1984. At the end of the introduction to that particular graph, the book said: 'these are selling prices from dealers of the most competitively priced computers with at least 16K of RAM' Wow! One of the comments in the review of the 64 was enlightening – 'the User's Guide is of the low standard associated with Commodore manuals' – they never learned, did they? Most of the problems I had as a beginner were directly associated with the unclear instruction manual I received with my A1200.

I won't bore you with any more, but it serves to highlight the current debate between Amiga users in all their varieties and the current preference being shown towards the PC in certain quarters. I read, for instance, in the leading PC magazine, that the reason the 486 was being offered complete at only £499 (including VAT!), was certainly that PC users must 'now consider the Pentium 100 with at least 16Mb RAM as the entry point...'. I would only comment from a personal viewpoint, that as far as I am concerned my Amiga 1200 with 4Mb RAM and a 170Mb Hard drive, plus my lovely Zip drive, all working happily through my HiQ Workstation via the Squirrel SCSI interface does all that I ask of it, or need it to do. And when using FastView, I can view all the pictures I need in glorious colour as near to instantly as makes no difference – so who needs to spend **much** more than £1500 to get a Pentium 100?

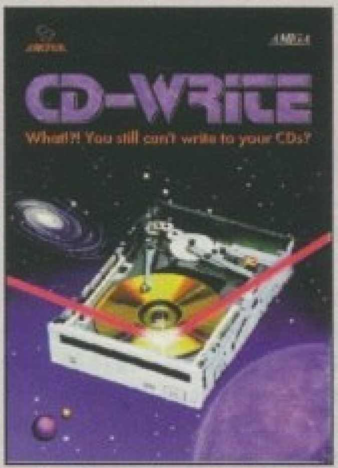
Ian Aisbitt, Hunton, N Yorkshire

Nice to hear from you again Ian. As Kevin Anderson said, people should get whatever best suits their needs, and it looks like you've found your ideal machine, so why worry? Even in five years your Amiga will still be doing all it is today, which might just still be enough for your needs.



Workbench Add-On Volume 1

The Workbench Add-On CD-ROM is the ideal companion to your workbench. On this CD you will not only find the best programs, that are available for the Amiga, but you will also get them ready-to-run from the CD. In addition to this there is an installer script that installs the desired programs to your harddisk.
The CD covers all areas of interest, all, the programmer, the user, the creative and the gamer will find what they are looking for. On this CD-ROM there are many shareware programs, some of them at a special price, if you get registered. There is e.g. Shapeshifter for 40.- DM (instead of 50.- DM), in addition to this there is a 50 MB Mac partition, so that you can start playing around with Mac applications right away. Then there is PowerPlayer for 20.- DM (instead of 30.- DM), there are, of course, loads of modules with it, so that you can try it right away. AmiWin, the new X11-server for the Amiga is available for $40, instead of $50. You can sa ve more than 100.- DM with this CD. Therefore you only have to send in the appropriate page in the booklet to the author of the program. £24.95



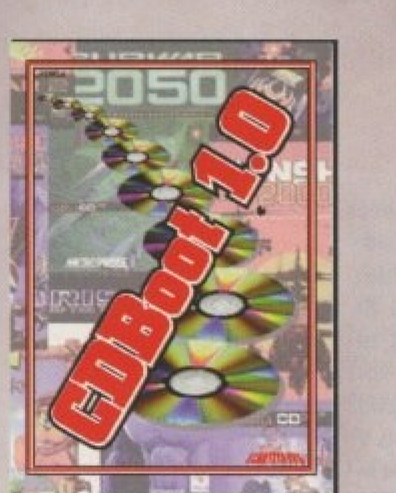
CD-Write

What?!! You still can't write to your CDs? CD-ROMs have long been an essential part of Amiga computing. Many users already own a CD-ROM drive, and the number of software packages available on CD is increasing steadily. Until now, though, it was not possible to write to CDs. We have solved this problem with our new revolutionary product: Ralph Babel and Stefan Ossowski's Schatztruhe are proud to present what can be considered a marvel of technology: CD-Write enables you to virtually write to CDs with an ordinary CD-ROM drive. From now on, you will be able to write, delete, and modify data on your CDs. This product will take you into a new era, and you will be able to utilize CD-ROM technology to its fullest. £44.95



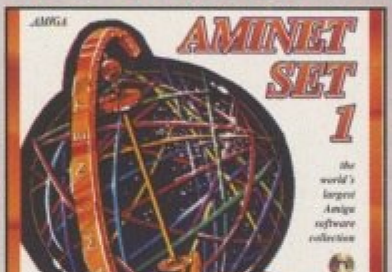
FreshFish 10

The FreshFish CD-ROM-series, produced directly by Fred Fish, provides Amiga users with hundreds of megabytes of the latest freely redistributable software. Published approximately every two months, each volume is a two CD set containing new submissions since the latest volume, as well as an ever growing selection of tools, libraries, documentation and other useful material that is updated with every release. £17.95



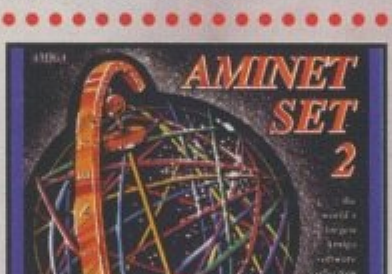
CDBoot 1.0

CDBoot is a fantastic new product that enables you to use almost any CD32 games on an A1200 or A4000 (with AT- or SCSI-CD-ROM drive and any filesystem). You can create a configuration file for each CD, containing information on the Joypad emulation. You can also save the highscore of each CD32 game. The usage and installation of CDBoot is very easy, also for beginners, due to the excellent English manual. Since the compatibility is very high, you can use 98% of CD32 games currently available. CDBoot is an excellent software solution for all Amiga-Freaks, who would like to enter the world of CD32 games! £34.95



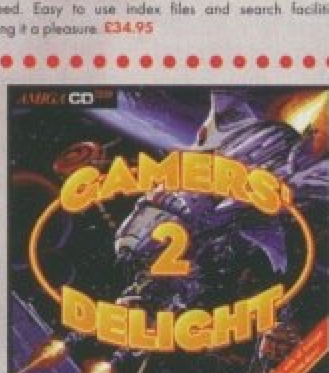
Aminet Set 1

Aminet is the world's largest collection of freely distributable Amiga software. Up to 10.000 users access the vast archives every day and countless programmers publish directly via Aminet. Until recently access to Aminet was restricted to international network users. With Aminet Set 1, consisting of 4 CDs, the complete archive is published the first time. This CD-ROM-collection, which is dated January 1995, offers an almost inexhaustible reservoir of top-value Shareware. A wide variety of programs is included: Applications, Games, Demos, Pictures, Mods, Animations, Developer-Material, ... It contains approximately 4 gigabytes of software in 12.500 archives and you will enjoy the comfortable user-interface. £29.95



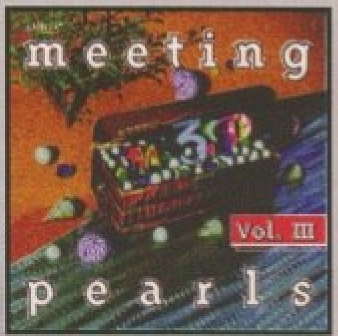
Aminet Set 2

AMINET SET 2, dated November 1995, consists of approximately 4 gigabytes of software in 12.000 archives. Whether you like applications, games, communications or programming, the SET gives you all you need. Easy to use index files and search facilities make accessing it a pleasure. £34.95



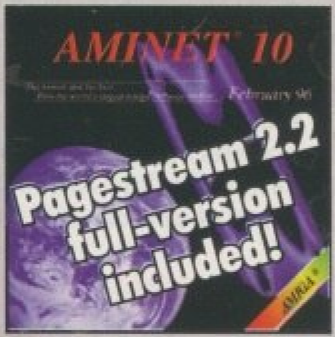
Gamers' Delight II

This CD contains 1070 games for the Commodore Amiga from differing categories. Action, Jump & Run, Card Games, Puzzles, Strategy Games - a whole range of computer entertainment awaits! Gamers' Delight will hold you captivated for hours and guarantees long-lasting pleasure. 70 games are commercial versions - no public domain & no demos! This CD can be run on any Amiga with CD-ROM drive,1 MB free memory and Joystick/Joypad. £26.95



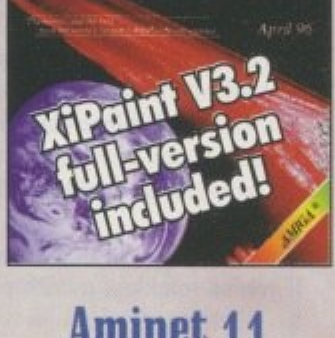
Meeting Pearls Vol. III

The Meeting Pearls Volume III contains 650 MB of the finest FD software via a special user interface, which has been created to allow you to find the program of your choice with ease. The contents: 10 MB Packer, Cruncher, Archive Programs · 3 MB CD-ROM Utilities · 21 MB Communication and Network Programs · 5 MB Debugging Tools · 29 MB Development Tools · 13 MB Floppy, Hard Disk ans SCSI Programs · 8 MB Educational Programs · 9 MB Games · 35 MB Graphics Programs · 39 MB Internet Movie Database, Updated Version · 7 MB Midi Tools and Programs · 27 MB Mods · 12 MB Music Programs · 21 MB Pictures · 13 MB AmiTCP and more for Networking · 60 MB Documentation, CD-ROM Databases, etc. · 96 MB PasTeX 1.4 - not previous available on any CD-ROM · 15 MB Utilities · 30 MB HTML-Pages · Collections of datatypes, benchmark programs, icons, programs for amateur radio and electrical/electronic engineering are also included. £9.95



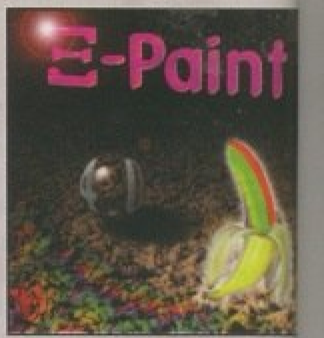
Aminet 10

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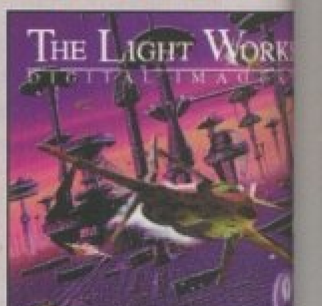
Aminet 11

Aminet CD 11, dated April 1996, consists of approximately 1,1 gigabytes of software in 3700 archives. Since the release of Aminet CD 10 more than 700 MB new software has appeared. The current edition has a special focus on pictures, more than 1000 pictures from the internet were included. User friendly access software makes the Aminet CD 11 a pleasure to use. £14.95



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functions · Airbrush with adjustable spray function[…]
function for manipulating montages and animations […]
with anti-aliasing using Compugraphic fonts · Support […]
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and today it is still a leader, with many high quality pr[…]
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of a raytracing program. The objects are highly […]
extremly realistic due to the application of complex […]
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NetNews Offline V[…]

NetNews Offline Vol. 1 is the first disk of a new bi[…]
series of Amiga CD-ROMs which contains all Amig[a]
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SCHATZTRUHE

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You want problems solved, you've got problems solved

DRIVING QUESTIONS

I have an Amiga 1200 with a 120Mb IDE hard drive and OS 3.1. I currently plan to buy a CD-ROM drive with a Squirrel interface and also intend to buy a larger internal hard drive with more space.

How do I put in the hard drive myself? If I buy a SCSI internal drive would I still need the Squirrel interface? Would I still need some kind of interface for a SCSI hard drive? Your advice is appreciated.

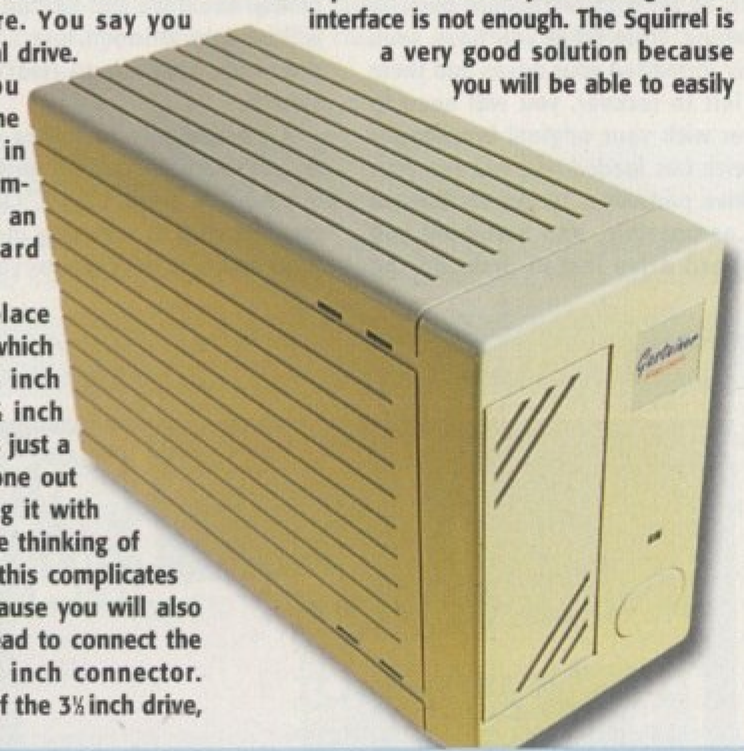
Michael, Fair Lawn, New Jersey.

If you intend to buy a CD-ROM drive for your A1200 then the Squirrel is your best bet, and it really is just a case of slotting it into your PC slot and installing the software. You say you intend to buy an internal drive. This would mean you would have to remove the current drive you have in your A1200 as there is simply not enough room in an A1200 to have two hard drives.

If you intend to replace your internal IDE drive, which I am assuming is a 2½ inch drive, fitting a new 2½ inch drive is very simple. It is just a case of taking the old one out of its tray and replacing it with your new one. If you are thinking of getting a 3½ inch drive this complicates things a little more because you will also need a new interface lead to connect the 3½ inch drive to a 2½ inch connector. Depending on the size of the 3½ inch drive, it may also be necessary to modify your computer's case.

I would think your best bet is to go for an external SCSI hard drive because you cannot fit a SCSI hard drive internally on an A1200. The difference between SCSI and IDE drives is that IDE drives have the interface electronics built into the drive, while SCSI drives rely on an external interface such as the Squirrel. Therefore, just owning a SCSI interface is not enough. The Squirrel is a very good solution because you will be able to easily fit your CD-ROM drive and an external hard drive. With all this extra hard drive space you may want to repartition your internal drive, giving yourself a larger Workbench partition. Depending on the size of your external SCSI drive, it may be a good idea to use the entire 120Mb as your Workbench partition.

The easiest way to do this is once you have set up your Squirrel with the external hard drive, you will be able to drag over your entire Workbench partition to the external drive. Now use the Squirrel software to produce a boot floppy disk, and then repartition the internal IDE drive. Doing this destroys all the data on the drive. If you now boot using the Squirrel disk you will be able to drag your backup copy of Workbench back over to the new internal partition.



You will never regret owning one of these – even 1Gb drives are not very cheap

IMAGE PERPLEX

I have an Amiga 1200 with an 850Mb hard drive. Last June I installed Image FX onto my DH1 partition and deleted it two months later as image processing is not really my scene.

The problem is that now when I load some PD utilities, I get the message 'please insert ImageFX – cancel/retry'. Then the program loads with no further problems. Sometimes I am asked for the AmigaGuide library but this is in my Libs drawer.

I have tried SnoopDos but am unable to find which libraries or files are missing. By the way, I deleted ImageFX by highlighting the icon and deleting it from Workbench.

Adrian Bernascone, West Sussex

My first reaction would be that ImageFX may have added an extra path in the user startup, but as far as I know it only adds an assign and a new drawer in the Env: directory.

Generally, when you install software, using the normal Installer program we use on the coverdisks, many programs add a few lines to the user-startup file which is found in the S drawer. Usually this is limited to an assign statement, but some programs such as MUI can add quite a lot.

This all means that when you come to removing a program from your hard drive, it is not only a case of deleting the program's directory, but also removing its related lines from the user-startup – not the most friendly way of working, I know. This is a problem with the Amiga's assigns, and you can blame Commodore for not implementing some sort of assign demon that sits in the background watching assigned programs and updating them when programs are moved or deleted, and programmers for not using the PROGDIR assign more often, which could potentially do away with assigns.

The best advice I can give is to tell you to carefully check your User-Startup, Shell-Startup and Startup-Sequence for any mention of ImageFX and remove it from these files.

As for the AmigaGuide library problem, there are a couple of version doing the rounds – one is for workbench 1.3 and is around 70k, the other is the one you get with your Workbench disks and is around 20k.

Jargon box

IDE – Integrated Drive Electronics, the hard drive interface found on A600, A1200 and A4000. The cheapest way to get a hard drive connected to a computer

SCSI - Small Computer Systems Interface, a more complex interface than IDE allowing all manner of peripherals to be connected to it, and as many as seven devices

Partition – when a hard drive is 'split' into sections these individual sections are called partitions and appear to be independent drives

Library – part of the Amiga operating system, libraries allow AmigaDOS to be extendible, so if you want to add new functions you just add new libraries

RISC – Reduced Instruction Set Computer, a design methodology that makes the processor as fast as possible by streamlining the execution path. The first step is to use only the most essential commands, so reducing the number used

CISC – Complex Instruction Set Computer, basically designed to make writing programs as simple as possible by putting the complexity in the processors command set and not the compiler

C++ - An extension to the normal C language that gives it object-oriented abilities, allowing functions to share and inherit abilities from other functions

STUPID FRANK

I am 5' 10" but am standing in a pool of s**t 6' 0" deep. Before I go any further I have an A500+ with 6Mb and a 120Mb GVP hard drive. I've had this lot for about five years doing bits of DTP, invoices, work sheets, bill heads and stuff like that, and have never bothered about how and why things worked, just as long as they did.

Last week I could not go out because of a chest infection, and being at a bit of a loose end I thought I would tidy up five years of rubbish that had accumulated on both DH0 and DH1. I went a bit silly deleting files I thought I did not need, but obviously some of those I deleted were definitely needed because when I went to boot up from the hard drive all I got was what looks like a CLI screen with:

```
AmigaDOS
copyright© 1985-1991 Commodore-Amiga
ALL Rights Reserved
```

I had the stuff I wanted backed up on floppies, so in my little tin pot way I thought 'No problem, I'll just reformat the hard drive'. That was mistake number two. Number three came when I tried to get everything back with Quarterback – a coverdisk back in December 1993 – but this just seemed to make things worse. Could you please tell me what to do to get back to normal, and I promise not to be stupid ever again. Also, please inform the rest of your readers to follow the great American saying: 'If it aint broke don't fix it'

Stupid Frank, Manchester

Oh dear, it looks like you managed to get yourself in a right mess here. I will start off by saying it is a good idea to go through your hard drive and remove old/unnecessary files, as long as you do not start trashing the system files. This is one reason for always having two partitions – one containing all your Workbench files and the other for your day-to-day work files. If you then delete stuff from your Work partition you will not damage any of those all important system files, but you should learn from your mistakes.

The first priority is to get your Workbench back up and running. Assuming, from what you have said, you have completely formatted your drives and there is nothing of use left to recover, you will need to boot your computer with your original Workbench disk. Once Workbench has loaded you will see your now empty hard drive partitions. To get Workbench set up as quickly as possible, and assuming you do not have any hard drive install disk, do the following.

1. Select your DH0 partition and do a quick format on it to make sure it is completely empty

2. Open up the Workbench disk's icon and select 'show all files' from the Window menu

3. Press the right Amiga and A keys, to select all the files in the Workbench window

4. Holding the shift key down, drag all the files over to your DH0 partition

5. Once all the files are copied, reset your machine and Workbench should bootup from the once defunct drive.

This will give you a working Workbench on your hard drive, but it does not do much to get your lost files back. If you cannot get any files back from the backup you have done then there is very little you can do in retrieving the old files. It may be possible to use something like DiskSalv, but if you have formatted the drive and written back over it then there will be very little left intact for DiskSalv to recover. Your only option is to reinstall your software from scratch.

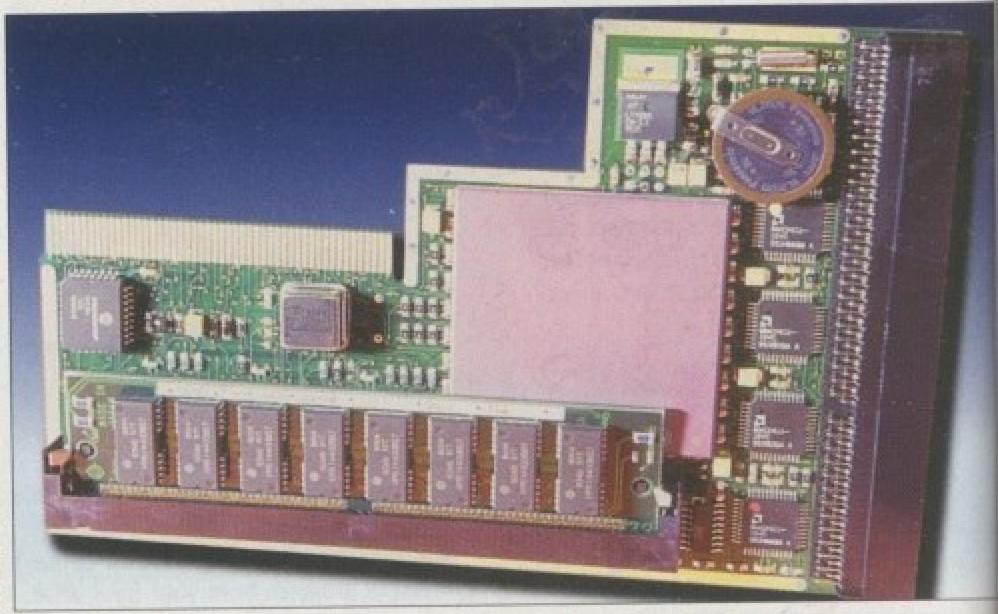
A general rule to follow when deleting files is, do not touch your Workbench files. These are things in your C, S, Devs, Libs, L, Classes and Locale drawers. Just stick to removing old data files such as pictures and text, or programs you do not use any more.

SLOW 60S

Nemac IV, your so-called system friendly game, doesn't work on an Amiga fitted with an 060 chip. This also applies to Breathless. It is a worrying trend that makes both the companies that write these games look very unprofessional indeed. The 060 may only be used by a small number of people now, but as time progresses and the 060 boards for the A1200 arrive, this number will surely increase.

It is annoying to find that spending money upgrading your machines actually reduces the amount of software that it can run, and not the opposite. Publishers should maximise their markets and not alienate high-end users. ECS compatibility is sensible, after all the PC does this in its support of lower-end graphics such as VGA as well as SVGA, but more powerful AGA machines should not be ignored.

Sam Smith, North Yorkshire



Most programs run incredibly quickly, but one or two cause problems for the 060

What we found when trying the Blizzard 1260 board is that games such as Nemac IV and Breathless ran, but incredibly slowly. This is to do with how the 060 works, and is something the software programmers could not have foreseen. To stream line the 060 execution path, not all the 680x0 instructions are built into the 060.

Unknown instructions cause a trap and during the trap the emulation has to find the right emulation routine and run this function. In a trap the processor is in the Supervisor mode and no other tasks can run. This effect is visible by the mouse jerking around. The system will become more unusable the more unimplemented instructions are used by a program. If you buy the Blizzard 1260 you get a program with it called CyberPatcher that attempts to change the instructions in these programs to one that will not cause a trap, therefore making the program run at full speed. One such program is Mand2000 which goes from running at around the same speed as an A1200 to running almost three times faster than an A4000. Unfortunately, this patch does not have any effect on Nemac IV and Breathless.

You might like to know that Alien Breed – The Killing Fields also suffers from this problem, but the CyberPatcher program *does* work, therefore allowing you to run the game on full screen.

The only real way around this current situation is to recompile programs especially for the 060 chip – perhaps the companies could provide an upgrade to 060 owners. The compiler would then make sure that the code ran as fast as possible and remove a[ll] these speed problems. The problem wit[h] this fool-proof plan is that I am not sure [if] any such compiler exists. There is, howeve[r,] a new C++ compiler coming out fro[m] Germany called StormC that can apparent[ly] compile optimised 060 code.

I do sympathise with how you feel – whe[n] the A1200 first came out many programs fe[ll] straight over. This was them either doin[g] naughty things to the chipset or it was the use of self modifying code that choked o[n] the 020's cache. We at *Amiga Computin[g]* have always complained when software di[d] not support accelerated machines and ha[rd] drives. If they do not do this, what is th[e] point in upgrading in the first place? The 06[0] situation is an unfortunate, but unavoidabl[e] one and you really are at the mercy of th[e] software manufacturers producing 06[0] versions of the original.

SLOW SCREENS

I thought my current setup was all that I would want. I have an Amiga 1200 with 8Mb FastRAM and a Viper board with an FPU. I mainly use the Amiga to access the Internet and for playing games. I originally got more RAM because I found out that the screen slowed down when a lot of windows were opened. At times it go so bad that the mouse would sometimes hardly move, or the computer would freeze, and this was with 4Mbs sometimes still available.

I may have got it wrong but I think I might need a graphics card or something. I wondered if you could help me out by letting me know what I need, and the rough cost.

Mark Williams, williams@madmark.demon.co.uk

Unfortunately, you are pushing the Amiga's graphics to the limit. To correctly redraw the Workbench screen every window needs to be refreshed, and with a lot of windows this starts to take a long time. A graphics card would help the situation as they use their own high speed blitters, but are only available on big box Amigas. You do not say what programs you are running or what screen mode you are using, as processor intensive programs will obviously slow screen refresh. Also if you are using one of the new AGA monitor modes these slow screen refresh except on 8 or 16 colour screens.

The best way out of this situation is to run as many programs as you can on their own screens. With the introduction of Workbench 2 this became a lot easier with the use of public screens, and just about all programs allow you to open a new screen or run them off an existing screen. This will leave your Workbench as clear as possible, and therefore your windows will redraw as fast as possible.

acas

Do you have a problem? Do you sometimes find yourself poised over your Amiga with axe in hand, spouting profanity at the stubborn refusal of your software or hardware to behave properly?

Well, calm down and swap the axe for pen and paper, jot down your problems, along with a description of your Amiga setup, and send it off to Amiga Computing Advice Service, IDG Media, Media House, Adlington Park, Macclesfield SK10 4NP. Alternatively, e-mail us at ACAS@acomp.demon.co.uk

HELP PLEASE

I recently replaced the Commodore installed 200Mb Seagate IDE hard drive with a 1080Mb Seagate AT Fast IDE drive, and I used the standard 3.0 HD Tools on the install floppy disk to format and partition the new drive. The drive was recognised and I copied all my Workbench and Work files over to the new drive.

Everything seemed to be normal as everything copied over correctly, but when I came to run programs such as Brilliance, I get the requester 'Unable to open your tool, Brilliance' or the name of the program I attempted to run.

I have tried everything, checked the partitions, rebooted, and even reformatted and copied the software back onto the drive to no avail. I then tried to copy the programs from their original floppies and voilà, they all worked perfectly. This is obviously very tedious and makes backing up programs to my Sysquest pointless. I suspect there is a problem with the copy function from one drive to the other, even though I use the 'all' statement and it only affects tools, since Workbench and all other utility directories operate normally.

I need your help. The Amiga is an orphan in America and I cannot get an answer. The drive manual refers to PC installation only, and all technical support personnel are programmed for PC-related problems and seem to have no Amiga knowledge what so ever.

William Trotter, Metairie La. USA

I am afraid you are not going to like my reply too much as unfortunately, I have no idea what your problem could be.

The frustrating part is that we have just installed a 1.6Gb IDE drive to our A4000 and are now having the same problem. At first we thought it may be the Maxtransfer rate or the Mask that you can set through HDToolBox, but none of these seemed to have an effect.

I found that using the copy command from Shell did copy the programs over so they worked, but this is still a very unsatisfactory situation to be in as we cannot use Workbench or Dopus to move programs around. If anyone has the solution to this problem then please send it in.

HOME INSTALLATION

I am one of those individuals who still has an A600m with a 120Mb hard drive. The hard drive has recently refused to work – the computer appears to think it no longer has one.

The physical installation looks OK and when I try to use install v2.05 it seems to correctly prep the HD, but cannot format it. Instead, the following message appears: 'Warning: Hard disk partition WB_2.x: cannot be found! This script formats partitions WB_2.x: and Work:. Make sure the drive is properly connected and prepped, and the partitions have the correct names.'

Any ideas, except buy a new hard drive?

Robert Mitchell, Ireland



A vital program that is essential in setting up your hard drive correctly.

As long as the hard drive *is* installed correctly, and you can hear it power up, I would think your best bet is to try and format the drive by hand as all the programs you need are on the install disk.

This involves using a program called HDToolbox. When you first run the program go to the 'Change Drive Type' and define a new drive. If you now read the drive configuration you should see all the different parts of the drive such as the manufacture, how many cylinders there are, heads, and other information you should not change. It will also work out how big the drive is from this information – this should be around the 120Mb mark.

If you click on OK and return to the main menu, select partition drive. Here you can select how big each partition should be and how many you actually want. I would stick with the normal Workbench and Work partitions, and make the Workbench one about 15 to 20Mb. You should also make sure Workbench is bootable and that Work is not. Now select OK and save the changes to the drive. When you quit the machine it will reset and you will need to boot up with the install disk again. You will then be able to, if that worked, install Workbench using the installer provided.

public sector

Dave Cusick sniffs the centennial PD trough with an air of quiet inquisitiveness, or something

A 100th issue deserves something special, and this month's public domain and shareware selection would certainly seem to fit the bill.

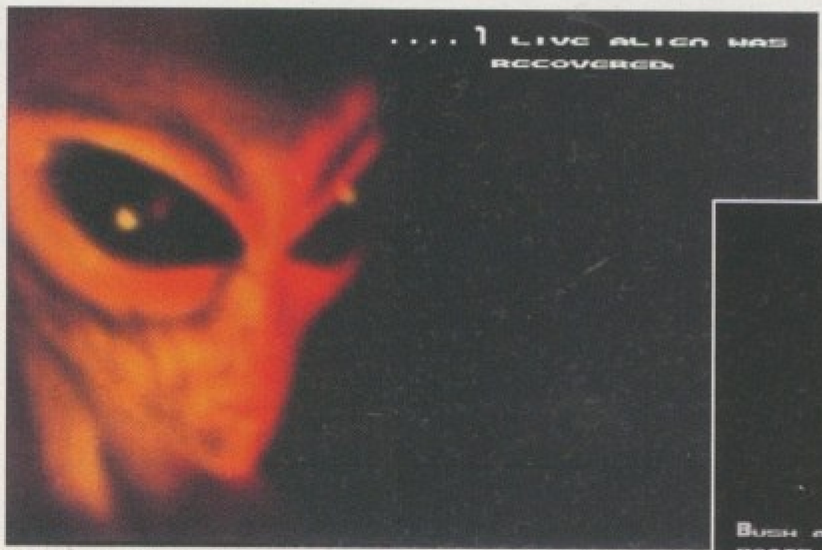
Honourable mention this month goes to the latest version of ClassAction, version 2.7 of which I seem to remember reviewing a while back. ClassAction creates an AppIcon which can trigger all sorts of different programs when files are dropped onto it. Version 3 not only implements the Commodity controls properly, but also uses the incredibly popular Magic User Interface. The Preferences program, which is used to define exactly what actions are performed on given filetypes, also includes a 'Learn' mode which allows you to teach ClassAction to recognise various file formats. ClassAction is an extremely handy utility to have knocking around your Workbench, and is available either from a PD dealer near you, or on Aminet.

LIARS

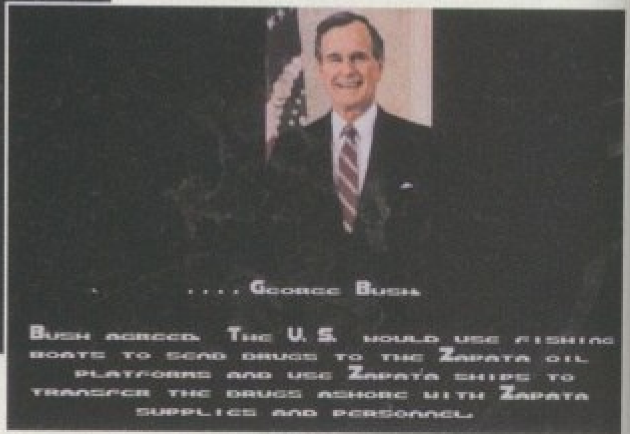
Produced by: Nerve Axis
Available from: OnLine PD
Disk No: OX302A/B

Liars is not so much a demo as, well, a public information broadcast, or something. Dispensing with the customary wibbling shapes and generically cheesy dance tunes (at least until near the end), Liars attempts to educate the world at large about the full extent of the nasty American government's involvement with alien races.

Apparently, the Americans made an agreement with aliens over 30 years ago, gaining the benefits of alien technology in exchange for covering up the continued abduction of human beings. Eisenhower initially negotiated with the extra-terrestrials, but Presidents right through to George Bush are alleged to have been involved. Liars claims government officials who didn't like the situation and threatened to tell were systematically eliminated. John F Kennedy found out and so, claim Nerve Axis, his driver shot him on that fateful day in Dallas. Whether or not you believe the rather amazing claims made on this disk is up to you. Liars doesn't feature stunning graphics, and it doesn't offer much in the way of visual excitement or sonic fulfilment. However, it's nice to see a demo that attempts to do something slightly different, and even if you come to the conclusion that the whole thing is just a figment of some bored individual's imagination, Liars still makes an entertaining read.



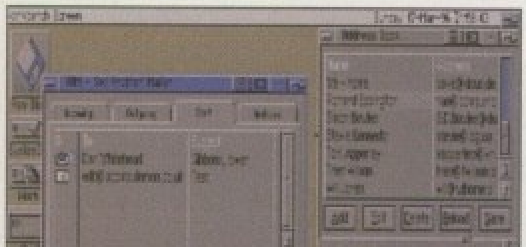
Liars: Believe it if you dare...



....or if you're just gullible

YAM

Programmed by: Marcel Beck
Available from: Aminet (as comm/mail/yam12.lha)



Yet Another Mailer: but at least this time it's one of the best around

The Magic User Interface plan for world domination continues apace. Hot on the heels of the superb AmFTP and AmIRC packages (which will, of course, feature in the new Amiga Internet bundle) comes Yet Another Mailer, which also uses MUI and consequently also boasts a stunningly attractive and easy-to-use interface.

YAM also has an impressive range of features. The address book facility is well implemented, and the configuration screen is fairly straightforward. There is a built-in UU encoder/decoder, meaning binary files can be sent and received. There's even an ARexx port, so other programs can control YAM – AMosaic for instance – and script files can be used to run mailing lists.

Interestingly, YAM does not use external programs to send and receive mail, unlike Voodoo, the mailer Amiga Technologies chose for their bundle. This makes YAM incredibly easy to set up and use. Unfortunately, as far as I can see it may also mean YAM is of no use to Demon subscribers because with Demon, users receive their mail using a different system to the one YAM supports. Still, if you use another service provider (or if there turns out to be a simple way around this), then I'd strongly recommend getting hold of YAM.

TASKBAR 4.29

Programmed by: Robert Ennals
Available from: Aminet (as util/wb/taskbar4.lha)

Windows 95 eh? A multi-million dollar advertising campaign, total media saturation, that dreadful Rolling Stones tune... and all for a piece of software that simply enables nasty PC compatibles to do what the Amiga and Apple Macintosh have been doing for years. And it doesn't even do that very well.

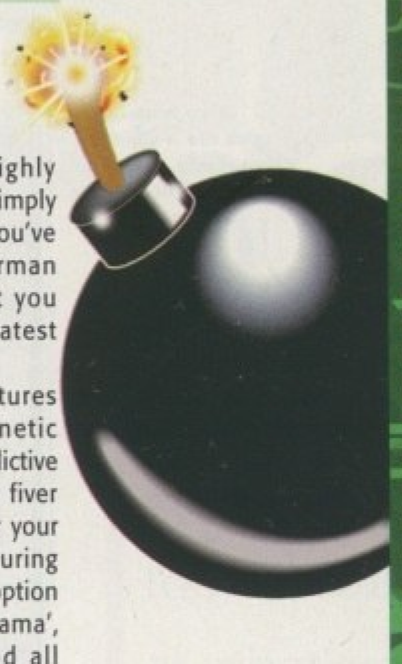
Still, some people like the odd thing about Windows 95. Robert Ennals liked the taskbar feature so much he wrote a program that simulates it on the Amiga.

Taskbar can open on any public screen you care to specify. It makes a thin little bar appear across the bottom of the screen, displaying current tasks and allowing you to flick instantly between them with a simple click. It can launch tasks from the start bar and is easily customised to suit your personal needs. Taskbar automatically adapts itself to the font and screen mode of whatever public screen it is running on.

This fourth incarnation, which boasts a number of significant improvements and bug fixes over the popular version 3, weighs in at a handy 32k, meaning it's ever-so-slightly more memory efficient than Windows. If you don't fancy having a Toolmanager dock floating around, Taskbar is a stylish alternative.

BOMB (BATTLE OF THE MASTER BOMBERS)

Programmed by: Silicon Circus
Available from: Aminet (as game/2play/bombv1_2.lha)



The aptly but appallingly named BOMB is a Bomberman/Dynablaster clone, which happens to have won a competition in a certain rival magazine. However, I won't hold that against what is an otherwise magnificent game.

I must confess that in my time I have participated in rather too many late night Bomberman sessions on the MegaDrive to approach any clone without a hint of suspicion. Copying such gaming perfection with any degree of success is invariably a tall order, and is rarely achieved. The AMOS-written BOMB is definitely one of the better attempts.

Although the game does have a one-player mode, the real fun comes when up to four players participate in a highly chaotic bomb-fest. The objective is simply to blow up your opponents, but if you've never experienced a good Bomberman clone, you really don't know what you are missing. It is probably the greatest multiplayer game in existence.

This demo version of BOMB features plenty of power-ups, fast and frenetic gameplay, and hours of irritatingly addictive entertainment. However, for a paltry fiver you can register with the authors. For your trouble you'll receive a version featuring even more power ups, a serial link option incorporating 'Widescreen Large-o-rama', league and cup competitions, and all manner of other tasty titbits. Cool.



Bomberman clones should carry a public health warning they are so addictive

BOMB: Tip top, four-player frolics

ALL I REALLY WANT

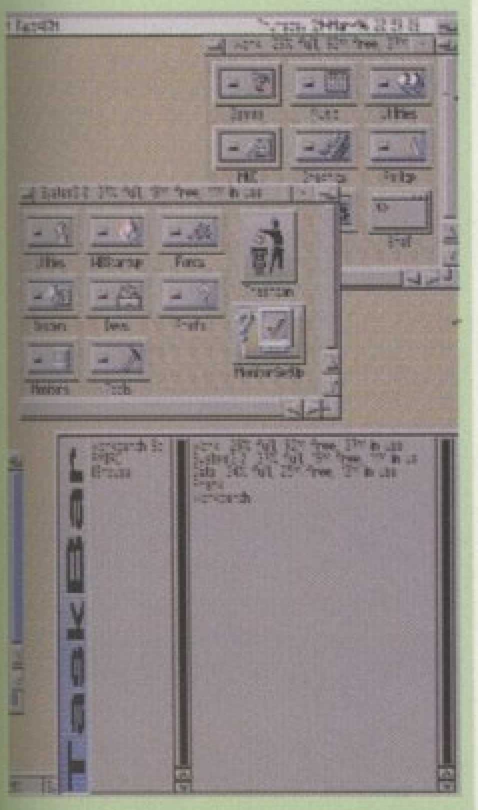
I want to hear from you if you have any program, whatever its purpose, which you consider worthy of review. Whether it will be freely distributable public domain, shareware or licenceware, if you feel it's of sufficient quality to merit coverage then stick it in a jiffy bag or padded envelope and send it in with all haste. Although Public Sector receives too many submissions to cover them all, I promise I'll at least look at your work – even if it's yet another Lottery program or Klondike cardset. It does make my job a lot easier, though, if disks are clearly labelled. Please also include a cover letter detailing the disk contents and price, and giving some basic instructions. The magic address is:

Dave Cusick, PD submissions
Amiga Computing, Media House
Adlington Park, Macclesfield SK10 4NP

YOU OUGHTA KNOW

Frustrated by all this talk of Aminet? Irritated that you don't have a modem with which to access this vast on-line software archive? Despair no longer, for Your Choice PD now offer an interesting alternative.

The idea is that you order their two-disk Aminet catalogue for a quid, sift through the index of files available on-line using the attractive interface, and write down the archives you'd like to get hold of. The next step is to contact Your Choice, who will download them for you at a cost of £1.50 per disk. Since everything on Aminet is archived in Lha format, a fair few archives can often be squeezed onto an 800k floppy, so the service should offer very good value for money. Your Choice say they'll even update the catalogue disks free of charge. Isn't that nice?



Bring the joys(?) of Windows 95 to a Workbench near you with Taskbar

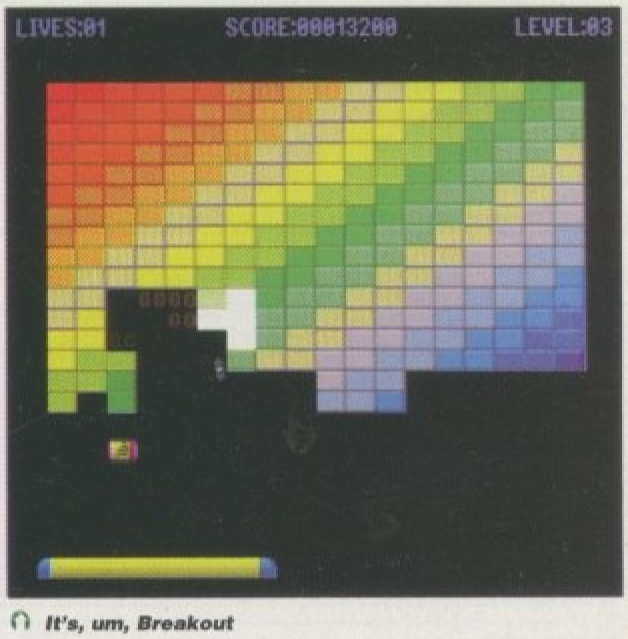
BORIS BALL

Programmed by:
Available from: F1 Licenceware Disk No: F1-133

Admittedly, there are far too many Breakout clones already in existence. Practically every programmer has probably attempted to create one at some point, and fortunately, as with so many simple ideas, the result is usually a highly entertaining game. Boris Ball is no exception.

The graphics are smooth and effective and the sampled sound effects are nicely done. There are also ample bonuses to keep the gameplay interesting, ranging from ones changing the size of your bat to those giving you extra balls and suchlike. You can also have lasers mounted on your bat with which to demolish more blocks, confusing bonuses which reverse the direction the mouse must be moved in, gravity bonuses which suck your balls towards the edges of the screen, level clearance bonuses, ones which allow the ball to pass through all the blocks including the metal ones... the list is seemingly endless.

There are five different speed settings and there's even a handy built-in help mode which will remind you what a certain bonus does when you are in the thick of the action. And if by any chance you should tire of the 100 levels which are provided, you can create up to 100 of your own using the built-in level designer.



It's, um, Breakout

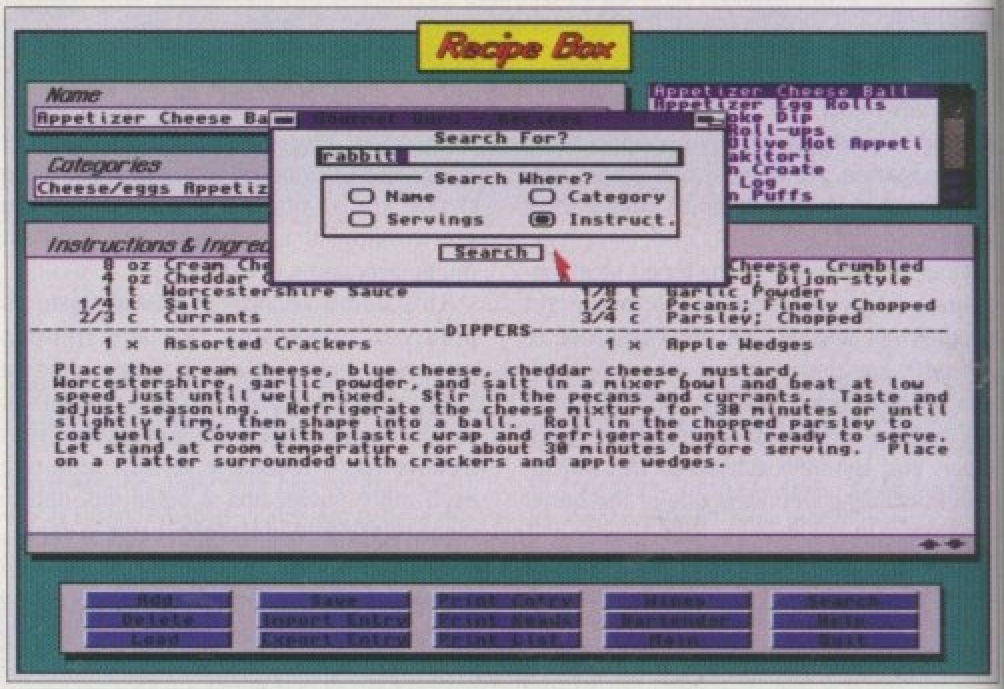
Gourmet Guru Demo/Wine Steward

Programmed by: Len Platt/Mike Richan
Available from: Roberta Smith DTP
Disk No: OS221

Gourmet Guru offers the perfect solution for flustered folks planning dinner parties. It allows you to build up a complete database of recipes, which can then be searched using a variety of filters: for instance, you could ask it to suggest a recipe for six people, or one involving Coriander.

Gourmet Guru has a colourful and attractive graphical user interface, and there are enough example recipes supplied with it to get any database off to a decent start. There is also a built-in Bartender offering a wide selection of cocktail recipes, and a wine list, although this only has a couple of entries included.

As a result, Wine Steward compliments Gourmet rather nicely. Once you've picked a meal it can be used to suggest a suitable wine, briefly describing the wine and offering various helpful details. Although rather primitive in presentation and design, it's not a bad effort. Both programs are shareware, although the Wine Steward demo is probably the more crippled of the two in that only a few wine facts are actually given in comparison to those in the full version. Gourmet Guru is a strong title in its own right, and for that reason keen amateur chefs are advised to seek out this disk.



Very nice... but give me a Chicken Biryani any day, with a side order of Keema Nan and stuff

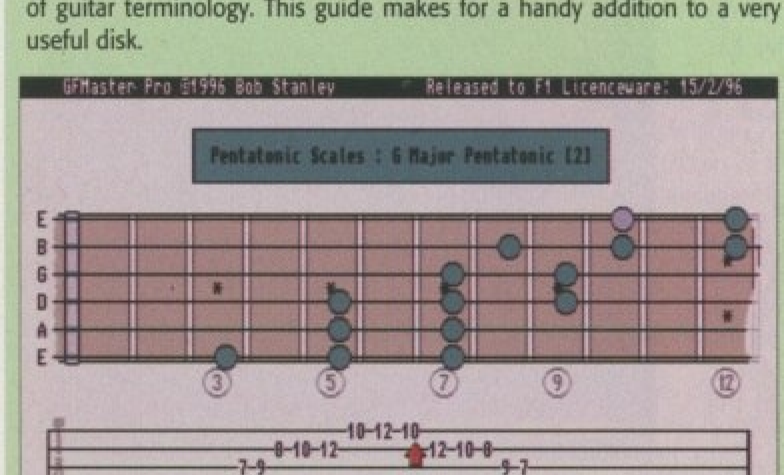
Guitar Fretmaster

Programmed by: Bob Stanley
Available from: F1 Licenceware Disk No: F1-132

Guitar Fret master is a friendly and well designed tuition tool. Its basic purpose is to teach you to play scales, whether they be major, harmonic minor, melodic minor, modal, pentatonic or extended pentatonic. It also teaches arpeggios, and there are numerous drills, starting with basic ones and working up to the introduction of Dire Straits' Private Investigations.

Selecting the scale you wish to attempt causes various coloured blobs to start appearing on a graphical representation of the fretboard, indicating precisely where each finger should be at any given moment. You can also optionally have your Amiga produce the note you are supposed to be playing. However, I can see this being more of a hindrance than a help because the note is a rather tinny internal effect as opposed to a sound sample.

Also included on the disk is a large AmigaGuide Guitar file. This includes plenty of fascinating background information from the history of various types of guitar right through to instructions for tuning up, fitting strings and generally caring for your instrument. The explanation of guitar tablature is sure to be helpful, and there is even a quick glossary of guitar terminology. This guide makes for a handy addition to a very useful disk.



Wouldn't it be weird if it turned out Noel Gallagher had learned to play the guitar using an Amiga program. Or something

Breed 96

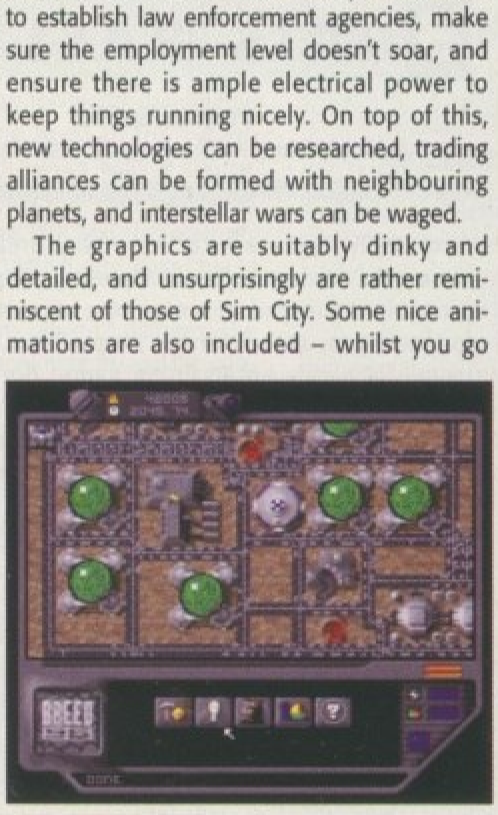
Programmed by: Damian Tarnawsky
Available from: Aminet (as game/misc/breed96.lha)

Cross Sim City with Dune 2 and you'd end up with something similar to Breed 96. Your task is, essentially, to build and run a space colony, meeting the needs of the inhabitants and protecting it from alien invaders.

Breed 96 is a brilliant strategy game which offers a wealth of gaming possibilities. Your first priority will surely be to ensure there are adequate residential facilities and your inhabitants have sufficient food. Then you will have to establish law enforcement agencies, make sure the employment level doesn't soar, and ensure there is ample electrical power to keep things running nicely. On top of this, new technologies can be researched, trading alliances can be formed with neighbouring planets, and interstellar wars can be waged.

The graphics are suitably dinky and detailed, and unsurprisingly are rather reminiscent of those of Sim City. Some nice animations are also included – whilst you go about building and managing the colony, traffic crawls around your road network, ships dock and unload their cargos, and alien droids rampage around the outskirts of your settlement.

You can save your colony to disk at any point and continue the game at a later date, and therefore you will probably become quite attached to your little world. It is the sort of game you can totally immerse yourself in for hours on end, and is also another example of an excellent game written in the all too frequently belittled Amos.



Breed 96: a bit like an enhanced Sim City in space

Hand in my pocket

F1 Licenceware
31 Wellington Road, Exeter, Devon
EX2 9DU
Tel: 01392 493580

OnLine PD
1 The Cloisters, Halsall Lane,
Formby, Liverpool L37 3PX
Tel: 01704 834335

Roberta Smith
190 Falloden Way, Hampstead
Garden Suburb, London NW11 6JE
Tel: 0181-455 1626

Your Choice PD
39 Lambton Road, Chorlton,
Manchester M21 0ZJ
Tel: 0161-881 8994

Simon says

...let your Amiga talk to you with this new set of speech tools. **Neil Mohr** takes a look at what's available

Until Workbench 2.1 came out the Amiga came with speech support, and after that Commodore probably saw a way to cut expenses and dropped the narrator and translator libraries, so removing this speech support. To be honest, for most people there would very little lost, but for visually impaired people speech would be of great help.

SofTalk is a drop-in replacement for the old narrator device and translator library, and as long as a program can access them in an OS legal way, all the old speech functions will work correctly. The new SofTalk files add extra functionality to the old Amiga speech and, in combination with the PhonMaker and TransMaker program, allow you to create new speech translation files. This allows different sounding voices to be produced and for different languages.

Once SofTalk is installed off the floppy, any program that can make use of the old Amiga speech libraries will now produce speech via the new SofTalk software. Multiple channels, variable pitch, speech rate, slur, stammer, lisp and a number of other controls are all available, and the major point of SofTalk is that you can define your own text to speech translation via two extra programs.

The software does claim to give better quality speech than the standard software, but the output is still the same sort of 'robotic' voice like the original Amiga speech. Your main reason for buying SofTalk would be if you needed speech on a Workbench 2.1 machine, or you wanted the extended configuration that is possible via the PhonMaker and TransMaker tools.

It is obvious that the author has spent a lot of time writing the manuals as they do go into great detail about the theory and techniques involved in using computers to translate written text into spoken English.

The two extra programs you have to purchase separately to the SofTalk software are not essential and are there so you can change how the computer sounds. If you are thinking of trying to do this then you should not expect to get results straight away because both programs are complex, due to the subject they are dealing with, and can therefore cope with whatever request made.

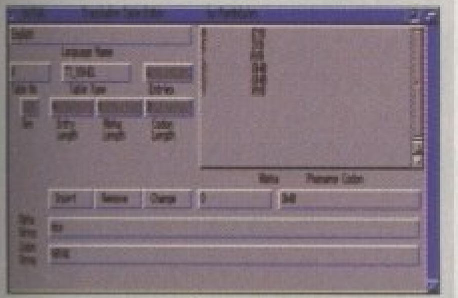
At the end of the day, you will know if you need this sort of software, as it is very specialised. The extra configurability is there but it will take you quite a while to get good results, and the standard speech is no better than the Amiga's original.

TRANSMAKER

When the Amiga translates written text into spoken text it uses codons to apply a corresponding sound to a section of text. When you pass a sentence to the translator it splits it into smaller and smaller sections until a match can be made in a look-up table.

When a number of codons are placed together you can recreate spoken words. TransMaker allows you to create and edit your own codon tables for use with SofTalk, and this allows you to produce a much better conversion process, as specific words can be given their own codon.

One subject that is covered in great detail in TransMaker documentation is how to code your own language parser. This is the code used by the translator library to translate normal English text into the sets of codons. As a tutorial it describes how the default translation code is written, but suggests that many improvements could be made by anyone willing.



If you don't like your Amiga's tone of voice, you can change it

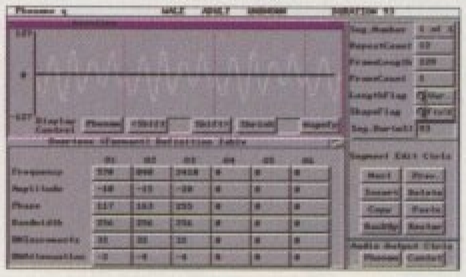
At the end of the day, you will know if you need this sort of software, as it is very specialised

PHONMAKER

The second part of generating speech on computers uses phonemes which are the smallest recognisable elements of speech and are represented by codons.

The phonemes are strung together to produce the actual word. This is very difficult to do as you are trying to model the complex mouth, tongue and larynx movements that produce speech, but using simple algorithms. The default phoneme set has 40 such basic sounds that represent transitions from one sound to another, and when used in the right order a word can be produced.

PhonMaker allows you to create either extra, or completely new sets of phonemes, and is easily the most complicated program of the three. You do get three good manuals that outline aspects of phonetics and how to use each part of PhonMaker, but even so you will have to do a lot of playing around with PhonMaker before you will start to get good results.



It looks complicated and it is complicated

Bottom line

REQUIREMENTS

RED *essential* **BLACK** *recommended*

1 Mb Chip RAM — 2.04 Workbench

PRODUCT DETAILS

Product	SofTalk	**Product**	TransMaker	**Product**	PhonMaker
Supplier	Parth Galen Software	**Supplier**	Parth Galen Software	**Supplier**	Parth Galen Software
Price	$35	**Price**	$47.50	**Price**	$47.50
Tel	001 320 685-8871	**Tel**	001 320 685-8871	**Tel**	001 320 685-8871

SCORES

Ease of use	80%	Ease of use	50%	Ease of use	60%
Implementation	70%	Implementation	60%	Implementation	70%
Value For Money	70%	Value For Money	70%	Value For Money	70%
Overall	70%	Overall	60%	Overall	60%


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The future has only just begun
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An investigation begins into using interactive video with the Amiga
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JOYSTICKS Buyer's Guide
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Flight sims supercharged
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Commodore back from the brink
SYSTEM
AMIGA COMPUTING
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Issue 31
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the emulator
is your amiga really something else?
real 3D
reality is an illusion - welcome to the real world
THE WORLD'S FASTEST GROWING AMIGA MAGAZINE
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SPITTING IMA
Importing art and imagery into your Amiga
Plus
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AMIGA COMPUTING
Surfing the Cybernet
Your complete guide to mastering the Internet on the Amiga!
Product reviews
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Concise and critical Amiga game reviews
EXCLU
Up to six w
nternet acces

Centenary celebration

Yes, it's official. **Amiga Computing** is **100** this month, so we bring you some of the highlights and lowlights from the past eight years

Welcome to this feature detailing some of the Amiga's history over the past 100 issues. We've seen changes in personnel, design and the fortunes of the Amiga. Back when *Amiga Computing* was young, a half meg expansion for an A500 would set you back somewhere in the region of £120, and a floppy drive was about £100. As for a hard drive, well if you had over a grand burning a hole in your pocket then you might be able to afford a slow 60Mb SCSI box added to the side of your machine.

In the big wide world the UK's Value Added Tax went up by 2.5 per cent, Saddam Hussein invaded Kuwait, the Yugoslavians invaded themselves, we saw asteroids hit Jupiter and comets fly overhead. There have been elections, assassinations, peace in Northern Ireland, troubles in Northern Ireland again, a US presidential election and, most recently, the scare over mad cows.

So what will the next 100 issues be like for *Amiga Computing*? We don't know.

With the fortunes of the Amiga in the balance we don't know if we'll even be around to reprise this feat of research, but we look forward to seeing you in another 100 issues time anyway, when we'll have Amigas with thought interfaces, CD-ROM drives that are faster than the fastest hard drive, and more memory than you can shake a stick at. Wait and see, it'll come... So we'll kick off this feature with some of *Amiga Computing*'s history, go onto the Amigas, and on the way we'll find out more about the people, companies, and stories that have made the Amiga's and *Amiga Computing*'s history such an interesting one.

DESIGN CHANGES

In Issue 31, the mag received a design change that meant our readers had to make their own minds up about how they thought a product performed, because the scores were removed from everything. Although a lot of people wrote in to say they liked the new design brought in in the May issue in 1994, we've had a lot more mail from people saying that they didn't like it since, which resulted in the revamp first seen in our January 96 issue.

The mag has changed its look over the past eight years, as is to be expected, but there are some features that haven't been repeated, such as the filofax-style games cheat cards that started coming free with the October 91 issue. There were six cards in each issue for about six months for all you yuppie Amiga-owning games players out there. *Amiga Computing* has also given away books (those 64-page jobbies seemingly printed on recycled toilet paper that seem so popular with certain Internet magazines), supplements, and competitions to win flights in light aircraft, subscriptions to Microlink, and even £3000's worth of A500 and games at one time. Our January 91 mag was the first issue to have ACAS in it, although it didn't have a title at that time, but by issue 34 it was called 'Interactive Rescue'. In issue 37 ACAS made its first appearance. Despatches (the letters column) was renamed External Input in issue 35 (April 91), but was called ESP for the first time in June that year.

Issue 38 was the first issue at the current page size. Previously, *AC* had been strict A4, now it is A4 wide (in the UK that is, US readers will get a style they are familiar with from Amiga World), and issue 41 was really the first full colour *Amiga Computing*. In issue 42, Dec 91, the news page announced that *AC* had a readership of 150,000, but no ABCs were available to prove it. Issue 48 saw the first appearance of the Blue Chip award and the one and only appearance of a sell through videos and SkyTV review page called Entertainment Xtra. Issue 51, Aug 92, was the debut appearance of the Amiga Mart section, long since gone, but not forgotten, and issue 57 was the first *Amiga Computing* to have the now familiar System Essentials and Bottom Line sections of a review.



INTERESTING USES OF THE AMIGA

● In volume 1 issue 4, we told of how the BBC were using Amigas – linked with Laserdisc players for the Domesday Project.

● In volume 1 issue 7, we detailed how Lever Bros. – world famous soap powder manufacturers – used Amiga 2000s to control the flow of their production lines.

● Vol 2 issue 3, Aug 89, we told of how the Australian stylophone maestro Rolf Harris used Amiga 2000s for animation stations on his TV program.



● Vol 2 issue 5, Oct 89, George Lucas (who is supposedly an avid Amiga fan – or at least was) arranged with Commodore US to produce four TV ads (we don't know whether or not he ever made them...).

● Vol 2 issue 10, Mar 90, A2000s used for medical imaging in tests at Imperial College London.

● Vol 3 issue 4, Sept 90, London Transport Museum use Amiga 500s for the undergound train simulator.

● Vol 3 issue 6, Nov 90, A500s used at Jodrell Bank – probably Britain's most famous set of large scale telescopes – to help with imaging.

● Issue 31, Stan Haywood, creator of Henry's Cat, uses an A2000 for his animation work.

● Issue 31, 190,000 worth of XCad installations at Hamworthy Engineering for architectural design.



See? Girl's do use computers, at least Kerrie Stevens does

● Issue 35, the first girl guide to win a computer literacy badge did so using her brother's A500.

● Issue 39 Aug 91, dentist uses Amiga 3000 with CanDo to teach endodontics – his name is Andrew Gould, now at Premier Vision.

● Issue 40 Sept 91, an Amiga is used to pitch convert a sample of the world's fastest talker in order to prove his record – 637 words per minute.

● In our issue 55 we reported how, when Rolf Harris asked for animations for his TV show, over 70% arrived on Amiga floppy disks.

● Issue 60 carried news of how the Manchester 2000 committee (to get the 2000 Olympics to be at Manchester) bought A4000s equipped with Scala to help with the[ir] presentation.

● Issue 61 had a feature on how Amigas are used to hel[p] produce a children's TV game show called Knightmare.

● Issue 61 also heralded the first appearance of Jakk[i] Brambles (now ex Radio 1 DJ) presiding over their advert[s]. According to her spiel, she was apparently an avid Amig[a] owner.

● In our July 93 issue we interviewed percussionist Evely[n] Glennie about her use of the Amiga and Bars and Pipes Pr[o] in her studio.

● In issue 66 we told our readers about a huge video wa[ll] at Wolverhampton Wanderers which wa[s] controlled by Amigas.



● Issue 70, London Transpor[t] Museum now to use CD32s fo[r] the underground train simulator using 3D graphics produce[d] with Real3D

● Issue 77 we feature[d] the Robocop TV series, and[ ] her use of the Amiga fo[r] broadcast TV graphics.

● Issue 80 carried a news stor[y] about how the Star Trek Voyage[r] effects were produced with th[e] help of the Amiga and LightWave.

● Our Feb 95 issue sports a handsom[e] Wallace and Gromit cover story as we revea[l] how Aardman animations rely on PAR card-equipped Amiga[s] to produce the Oscar laden animations (about a year befor[e] any of the competition get to the story).



● Our April 95 issue had a big feature about the Mag[ic] Camera Company's work on a film called CyberJac[k] and about Mu-Media's work on The Grid's musi[c] videos and BT information films.

● Issue 90, Sept 95, and we went to the zoo i[n] Colchester, Essex, to look at a CD32 informatio[n] system used to tell visitors all about the zoo's bi[g] cats

● Issue 93 we tell about how the Imperial Wa[r] Museum uses Amigas for visitor information.

● Issue 96, two features on professiona[l] Amiga use. First is Eureka, a children's scienc[e] museum where Amigas are used to provid[e] A/V displays, and then a visit to the Magi[c] Camera Company where Amigas were use[d] to provide some of the special effects for the Jame[s] Bond film Goldeneye.

● Issue 97 featured Granada Television, one of the UK'[s] largest entertainment companies, and their use of the Amig[a] for shows like The Krypton Factor, Cracker and others.

WHERE ARE THEY NOW?



Nic Veitch is currently editor of Amiga Format magazine



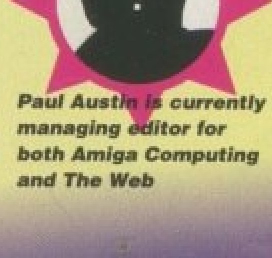
Simon Rockman was last spotted writing for Demon's in-house magazine and edits his own mobile phone mag



Stevie Kennedy is currently editor of The Web magazine



Eddie McKendrick now works for Nickelodeon, the television station



Paul Austin is currently managing editor for both Amiga Computing and The Web



Jeff Walker now works for HiSoft. Until recently he also single-handedly produced Just Amiga Monthly magazine.



Phil Morse (Amiga Computing's first sub-ed listed who was on the mag for two or so years) is now a DJ for a nightclub in Manchester

GONE BUT NOT FORGOTTEN

● Volume 2 Issue 2 July 89, WordPerfect Corporation stop Amiga Development.
● Issue 64 September 93, HB Marketing goes bust.
● Issue 64 September 93, Microdeal bought by HiSoft.
● Issue 69 December 93, Access Amiga advertised for the first and nearly the last time .
● Issue 72 April 94, Digital Creations say that Brilliance 2 is their last Amiga product and Gold Disk also stop Amiga development.
● Issue 75 July 94, Commodore International and Commodore Electronics go into voluntary liquidation. Also in this issue ASDG, Nova Design, Digital Creations, Amiga World magazine, SoftLogik, Centaur (OpalVision creators), Prolific, IAM and Blue Ribbon all promise to continue support for the Amiga if CBM goes bust. Out of this crowd, the only people left in the Amiga market today are Nova Design, SoftLogik and IAM, with Prolific's status uncertain (they created circuit board design software). Centaur and Amiga World went bust and ASDG, Digital Creations and Blue Ribbon were all either bought up or merged with companies not producing items for the Amiga and ceased their Amiga operations.
● Issue 76 August 94, New Horizons software closes down.
● Issue 77 September 94, Medhi Ali officially leaves Commodore.
● Issue 81 Christmas 94, Europress Publications bought by IDG.
● Issue 86 May 95, WTS raided by police after numerous complaints. In the same issue we carried news of Amiga World's demise.
● Issue 87 June 95, Rumbelows (a large chain of electrical retail shops in the UK) closes down, but Escom buy the shops. Also this issue the news that GVP liquidated on 5th April 95.
● Issue 88 July 95, VRLI announce they are to stop Amiga development, but Chaocity pledge to continue to develop Vista Pro, etc.
● Issue 89 August 95, David Pleasance and Colin Proudfoot won't be joining newly formed Amiga Technologies UK and ZCL go bust taking their retail shops Calculus, and mail order division Indi Direct with them.
● Issue 93 December 95, Rasputin (games developer) goes under.
● Issue 97 March 96, Amiga Technologies UK Maidenhead office closes. The two remaining staff move to Stanstead.
● Issue 98 April 96, Canadian dealer and distributor Wonder Computers go bust.

COMMODORE/AT PRODUCT RELEASES

● In our Feb 1989 issue Commodore announced the 2500 – an A2000 with Commodore's own 030 accelerator and SCSI hard drive controller.
● In May 89 we announced the A590 for Commodore. It was a SCSI/XT drive controller for the A500.
● August 89 saw the announcement of the A3000, the first really new machine since the A500.
● January 90, the announcement of the Class of the 90's pack, a 1Mb Amiga 500 with educational software for £499. Demand outstripped Commodore's predictions and they had to triple the number of packs produced.
● Our July 90 issue saw the Flights of Fantasy A500 pack announced to fill gap left by Batman pack. The pack contained F29 Retaliator, Rainbow Islands, Escape from the planet of the robot monsters and DPaint II.
● First reports of 'Baby' – the machine that will become the CDTV in our August 90 issue.
● Screen Gems bundle announced with Days of Thunder, Back to the Future II Shadow of the Beast II Nightbreed and Dpaint II in Nov 90 issue.
● CBM UK offer a £200 discount for an A1500 when you trade in an old A500 in our March 91 issue... ...but in our April 91 issue they say it was a mistake, but that the price of an A1500 would drop to £999 inclusive of VAT, a saving of 150 at the time. They also offered a trade in of any other console for an A500 discounted by 70.
● CDTV launched on 30 April 91 at £599.99, but because of Commodore's insistence that it not be marketed as a computer, not many of the independent dealers can, or want to, stock it.
● Commodore dropped the price for a Class of the Nineties First Steps bundle by 100 in our August 91 issue to compete with a similar offering from Atari.
● CBM UK launches new 'Cartoon Classics' bundle in our Sept 91 issue. The 399 pack includes a 1Mb Amiga 500, Bart v the Space Mutants, Captain Planet, Lemmings and DPaintIII.
● Rumours of a new Amiga surface in our October 91 issue. The new machines are to be upgraded A3000s with 68040s (in other words, the fabled A3000+). Other machines using RISC processors are also on the cards and both could be with us by August 92. Both machines will have improved sound and 256 colours onscreen for VGA emulation. Commodore are also guaranteeing backwards compatibility. The same issue sees the notice that the Workbench 2 upgrade kit will finally



HOPEFUL PRESS RELEASES

Copperhead Technologies announced in our Dec 93 issue that they were offering an A1200 upgrade for A500 owners that would allow them to have access to AGA and the IDE controller and trapdoor expansions that A1200 took for granted for just $225. Nothing has been heard since.

Gigatron announce a portable Amiga in our March 1990 issue, it was supposed to be shown at CeBit that year, but as our report in the July issue states, they were nowhere to be seen. Nothing has been heard from them since

Although the OpalVision board had been out for quite a while and was reviewed in our 54th issue (where the add-on modules were promised RSN), it wasn't until our 83rd issue that we printed a press release that stated that the fabled Roaster chip was going to be available at any moment, and that people should start holding their breath now. The Roaster chip was finally shown in a flawed form that year at one of the London Amiga shows, but it never appeared on sale, nor did the other modules like the flicker fixer, TBC, etc.

Our 82nd issue in January 95 had a company called Computer Answers announcing an Amiga compatible with 030 and Akiko chip. Whatever happened to that?



Steve White is now HTML guy for The Web magazine

John Kennedy freelances all over the place

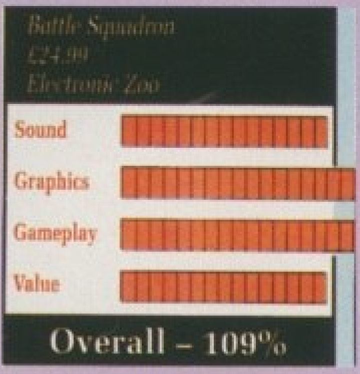
Adam Philips is now associate editor for The Web

Darren Evans is now reviews editor of PC Home magazine

BITS AND BOBS

● Our August 89 issue carried a review of Vortex's System 2000 external 40Mb hard drive for the A500 (cost 573.85) and we said 'Most users will find 40 megs more than adequate for their needs.'

● We were even more prophetic in our January 1990 issue when we reviewed the SyQuest 20Mb removable (without a SCSI interface: 1220) 'this is a pointer to the future. We will all have hard disks in a couple of years' time. Removable disks can wait until the mid-1990s' We gave the drive 59%.



You can only get away with this sort of thing on a very irregular basis...

● Our March 1990 issue carried a review of Battle Squadron. Stewart C. Russel concluded his review by stating: "Everyone went gaga over Xenon II, and rightly so – it was the best available then. But now Battle Squadron is the best. Xenon II scored the perfect 100 per cent. How can we express that Battle Squadron is even better? Hmmm. I'll show you how...."

● Our thirtieth issue way back in December 1990 carried an ad from Greater London Computers offering an A3000 with a 100Mb hard drive, a multiscan monitor and 6Mb RAM for just £3793.85.

● Issue 34 carried a news story from Howard Newmark, then head of The Software Business, who stated that in the future all games for the Amiga 500 would come on a cartridge his company was creating to stop piracy. It never happened.

● We reviewed the Courier HST modem in our May 91 issue. This 14.4k modem then cost just £1144.25

be on sale by Christmas this year.

● Our November 91 issue carried details of the A500P as it was then called, also known as the A500+. It would have 1Mb RAM Workbench 2.04 and the enhanced chip set found in the A3000. Commodore hope to sell it for the same price as the existing A500 (when this machine did start to ship in numbers, dealers threatened to drop support for it if compatibility problems with games continued).

● Issue 49 (June 92) saw the announcement of the A600 and Commodore showed the A570 CD-ROM drive for the first time. They also launched a set of CDTV peripherals designed to make it more like a home computer.

● In July 92, only eight months after we first covered it, Commodore announce that they are ceasing production of the A500P. CBM US announce that they will be launching new Amigas later in the year and rumours surface about a new machine codenamed Amiga Classic 2200 based on 020 with hard drive as standard and separate keyboard, monitor included for under £1000. The A570 is also further delayed this month.

● In October 92's issue, CBM state that there is no A800, but that the A4000 and A2200 are due for launch in September 92 (remember, we probably wrote October's news in about June of that year). CBM cut the price of the A600 to £299, but leave the hard drive version at £499 and CBM US announce that the States are to get the A600 in the autumn.

● Our November 92 issue carried news of three new A600-based bundles. 'The Wild, The Weird and the Wicked' contains DPaint III, Microprose Grand Prix, Putty and PushOver for £349 and Epic and Language Lab bundles also have a hard drive and different software for £499. We also heard that a new factory had been started in Irvine in Scotland and that the A4000 would be on sale by the end of October. The A2200 has officially been dropped, but insiders reckon there'll be another new Amiga next year. The A4000 is shown for the first time in the US.

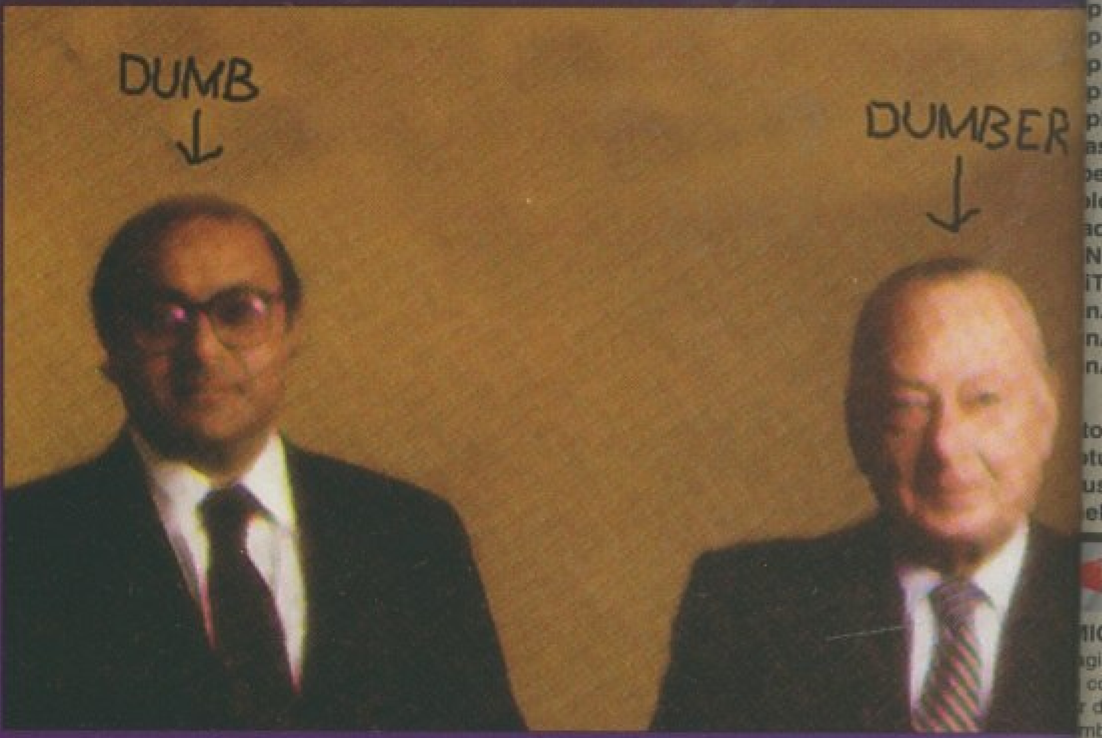
● Our December 92 issue gave the first details of the A1200 and the A4000 is finally launched in the States at a price of $2800, but the double A chipset is renamed to AGA, apparently to avoid confusion with an association that deals with alcoholics. Hmmm, maybe I shouldn't fly with American Airlines on that basis now...

● Our Feb 93 issue told about the trouble with exchange rates and how the dollar's rise in value from $1.98 to the pound to $1.53 to the pound was responsible for Commodore putting up the prices on all Amigas by £30.

● In April 93 we told the world about Commodore's plans for the A4000T and DSP module, which would be on sale, according to Commodore, by the summer of 93. That issue CBM also announced an AGA display enhancer

● May 93 saw the launch of the A1200HD with an 80Mb drive.

● In our June 93 issue we told you that Commodore had



MOST DELAYED PRODUCT

● Video Toaster (first announced 1987, released 1989). Never really reviewed in *AC* owing to the fact that it was a pure NTSC product and we then had no US version.

● LightWave 4 (first announced in our April 95 issue. We promised reviews of it almost constantly for a year).

● TFX (Ocean gave us the finished version for review back in March 95. The review appeared in May's issue and we gave it 90%. The game has still not been released, but may be by the end of April this year).

● PageStream 3 final (i.e. 3.1) first announced in our Dec 93 issue, it still has not reached a final version.

● PAWS. The Portable Amiga Work Station. We first published details of this monster in our March 95 issue, but it had already been doing the rounds for a while then. We still don't have one for review...

● Emplant seemed to take forever to surface (it was first announced in our Sept 92 issue). The Mac version is supposed to be pretty good now, but the PC side is still slow and what happened to the PCMCIA version or the super fast graphics card?

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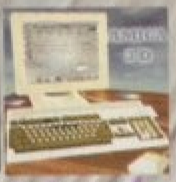
486DX2/4 Board	128Kb Cache, 2 x Serial, 1 x Parallel, Floppy and HDD Controller, Keyboard socket, External Power Connector, PC104 Expansion Port,128Mb RAM max. Accepts 486DX2/4 Processor at 33 to 100MHz.	£349.95
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UTILITIES EXPERIENCE is a superb CD crammed with all the best in Amiga Utilities. The CD features a smart MagicWB interface with custom ray-traced icons. Programs are virtually 100% ready-to-run directly from the CD without the need to copy or install to Hard Drive. Highlights include HTML (WWW Internet) pages (with a special version of AWeb) and commercial demos of the Amiga's top programs. 100% indexed with easy to find program structure, sorted into directories with appropriate icons. **£14.95**



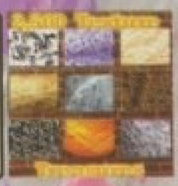
ESKTOP VIDEO BACKDROPS is a collection of hundreds of Backdrops suitable r the Desktop Video Professional. Each backdrop is broadcast-ready and in broadcast solution. This CD-ROM is compatible with every computer platform. The Backdrops are presented by thumbnail renderings in the INDEXES directory for easy previewing. This llection varies from geometric shapes to floral patterns, perfect for any application such s home video productions, training videos and national broadcasts. **£14.95**



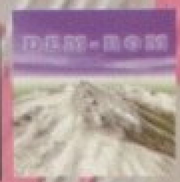
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,500 TEXTURE TREASURES contains approximately 2,500 textures for the computer tist in many different categories for print, 2D/3D graphics and animation. Categories Brick, umpmaps, Cards, Canvas, Carpet, Cloth, Crimple, Fire, Formica, Granite, Greenery, Images, arble, Materials, Metal, Misc., Organic, Panels, Patterns, Rock, Roughs, Skin, Stone, Stucco, les, Wood, etc. All of the textures are represented by thumbnail renderings for easy previewing in e INDEXES directory. **£14.95**



DEM-ROM consists of over 1,000 Digital Elevation Maps from the USGS. These files can be loaded into Vista Pro, Scenery Animator and World Construction Set to create breathtaking scenic stills or exciting animated flights through landscapes.These flights could be saved and loaded into a 3D program as a background image sequence while taking a 3D object such as an aeroplane or a spaceship and rendering it in the foreground to create realistic flights of fancy.These DEM's can also be loaded into any 3D conversion programs to create 3D landscapes in LightWave, Imagine, 3D Studio, TrueSpace etc. Complete with thumbnail renderings of the topographical map of all the DEM's. **£ 9.95**



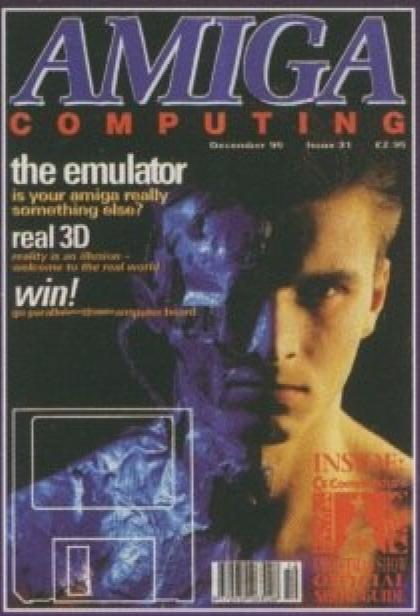
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AMIGA

First up the pyramid. AT said it was 'dynamic'. Then came the Corrupted Bodoni version – the red square was said to represent technology



"They used car spray paint on my face for this picture and it burned for days afterwards" – Steve White

shown the A4000/030 at CeBit and leaked details of the DSP add-on, which was now to be a ZorroIII card, and the high and low end AAA chipset.

● Our July 93 issue had details of the top secret CD32 project which was supposed to come on sale at just £199 and we gave targetted shipping dates of June 94 for the new high end chipset.

● In August we revealed that the next generation of Amigas would use RISC processors and offer extremely high resolution graphics. The new machines would also run WindowsNT.

● In our September issue Commodore announced the fact that the CD32 was to go on sale by the end of August for £299 and £199 for the FMV card which was to go on sale by the end of September.

● By the time our November 93 issue hit the shelves the FMV module was promised for the next few weeks at a price of £229.

● Our December issue carried details of the Race n Chase A1200 bundle which had Nigel Mansell and Trolls in it for just £299.



Remember Ham-E? This gizmo gave you HAM-8 on an A500

● Issue 72, April 94, carried the disappointing news that AAA development had been suspended.

● Our issue 73, May 94, had details of another new A1200 bundle called Computer Combat. It came with Brian The Lion, Zool2, Total Carnage, Wordworth 2, Day by Day, Print Manager and Personal Paint 4 for £349. Also launched the same issue the CD32 bundle Spectacular Voyage with Microcosm, Chaos Engine and the four games from the Dangerous Streets bundle for 299.

● In issue 75, CBM launched a new A1200 bundle called Frontier Innovations which came with Frontier Elite II, Batman Returns, Total Carnage, Brian the Lion, Zool 2 and Wordworth AGA, Day by Day and Personal Paint 4 for £349.

● Issue 80 carried a release from CBM UK about a new console promised for Christmas 95, to be known as the CD64, but David Pleasance denies it in our following issue.

● Our July 95 issue, 88, carried the first Amiga-related release from new owners Amiga Technologies. They said they wanted to encourage third-party licenses for the chipset and OS.

● Issue 89 carries the news that an 030 A1200 and an 060 A4000 will be available early in 96.

● Issue 90 had the news that AT were promising the A4000T for Christmas 95 and they changed the logo.

● Issue 92 had news of the first AT A1200 bundle: the Magic pack which would retail at £399 for the floppy version and £499 for the one with a 170Mb hard drive. The hard drive version also came with Scala MM300 even though the Amiga 1200 as standard could not run the software. AT also announced in this issue that they thought the A4000T's strongest market lay in the US and they would be concentrating their efforts there for this machine. Finally, they also launched the Virtual IO glasses in this issue.

● Issue 93, AT tell us they don't think there is enough demand to warrant selling A1200s in the US as the 1200 goes back on sale in the UK and Europe.

● Issue 95, the first for 1996, reveals the PowerPC as the choice of processor for the next generation of Amigas and AT also announce the QDrive CD-ROM for the A1200.

● Issue 96, AT announce Internet bundle. It will come with the same software as the Magic pack, but also with Internet software to link up, mail, ftp, IRC and browse the Web. The pack will have a 170Mb hard drive and a 14.4k modem for around £600 .

"With the fortunes of the Amiga in the balance we don't know if we'll be around to reprise this feat of research, but we look forward to seeing you in another 100 issues"



Master of

Well, we had a resounding success with our latest reader survey, and I'm glad to see that most Amiga owners are actually intelligent enough to work out where to send their entries, even though we purposefully didn't include an address to send them to, honest...

Actually, we always knew that you lot were brighter than the average Amiga user, and probably a bit more mature, and the results we have collated bear this out. There are very few of the old unexpanded Amiga fraternity content to spend their hard-earned merely on games and a joystick every year, and most of you seem to be quite prepared to lavish a fairly large amount of money on your machines over the course of the next year.

So let's have those results then shall we? It came as no surprise that the machine that was most popular was the A1200, closely followed by the A2000/A1500. In fact, quite a lot of you seem eager to actually own more than one machine, which would obviously mean that a network port as standard on an Amiga would prove to be a popular decision on AT's part. Even more pleasant to relate is the fact that over 91 per cent of our readers have a hard drive, with only a recalcitrant or poor 8.1 per cent having to suffer the ignominies of the floppy drive.

The fact that most of you are using A1200s is borne out by the processor stats showing the vast majority of people using an 020. Funnily enough, though, the figure for 020 usage is actually only just bigger than that for 030, meaning you all must like upgrading your 1200s, a fact which is also shown by the statistic that says that nearly half of you own an FPU of one description or another.

Streets ahead

The number of CD-ROM drives out there is also surprisingly high, especially when you consider the dearth of really good CD-based software, but very nearly half of our readers actually have a CD drive. Maybe you all use them for playing music most of the time, like I do?

Comms was an area surprisingly undersubscribed to, especially considering how busy the Aminet is, but it shows that we are actually providing you with a service when we put Aminet releases on our coverdisks. In the end, only just over a third of you have a modem, just over half that number have a 14.4k modem, and just over half that number also have an Internet connection.

Perhaps because of the preponderance of A1200 owners, there are very few of you who have graphics cards, although quite a few stated that their favourite piece of hardware would be one of these high resolution output devices. This probably



CD-ROM drives – seems you just can't get enough of them

accounts for the fact that most of you who have a monitor still only have a 1084-type monitor, although the low-end and high-end multiscan figures put together nearly match the 1084-type.

Disappointingly, most of you still only have a dot-matrix printer, although the inkjet/bubblejet camp is in a close second place. Only about eight per cent of you don't have a printer at all, so let's keep those letters coming in please!

That A1200 bias pops its head up again in the Workbench revision answers, with the overwhelming majority of you using Workbench 3.0. WB 3.1 accounts for the next highest figure and thankfully, 1.3 only now accounts for 5 per cent of our readership. Even so, this is far too many people. Get your acts together and upgrade!

As far as software is concerned, it seems that very few of you actually use your Amigas for CAD, but a huge proportion of you actually do spreadsheets on your machines. Games are as popular as ever with only a small amount of you denying you ever play them. The Amiga's supposed strengths are not being used to the full by our readers either, with a poor showing for video titling, editing, multimedia and animation, although an increasing number of you are using Amigas for 3D graphics. Unsurprisingly enough, not one of you never uses a word processor, so it looks like Softwood and Digita are right to keep up their arms race.

Onto the magazine now and it seems that most of you think we are doing a good job overall, although a lot of you say you would like more ESP and ACAS pages. To be honest, we wouldn't mind filling the entire magazine with problems and letters, it would certainly make our job easier, but we can't do it. Why not? Because of the fact that you lot have to actually write the letters and problems before we can put them in the magazine. We don't have a policy of making up letters to fit the number of pages we have set aside for them, so it is your input we rely on.

Overall, you seem to like the magazine though, with only the Amiga Guide s[...] tion getting a higher than average 'poor' respon[...] Then again, it also gets a larger 'exceller[...] response than most other sections so I'm not su[...] what we can learn from this. However, we will [...] putting our heads together to see if we can reva[...] the section in some way. The most encouragi[...] aspect for us is the fact that most of you think o[...] reviews and features – the core of our magazine [...] are either good or excellent.

One of the set of statistics we found rather co[...] fusing to start with was the fact that so many [...] you find the magazine easily, until we realised [...] should have worded the questionnaire slightly d[...] ferently to take account of subscribers saying 'Y[...] it's on my doormat every month'. What we actua[...] meant to ask was whether those of you that do[...] subscribe found it easily in your local newsage[...] but never mind.

Subscriptions

Of those subscribers we have, the majority of y[...] have only subscribed for between one and t[...] years, which can only be put down to our ne[...] American and Canadian readers from the demise [...] Amiga World, but we do have a hardcore of reade[...] who have been with us for over five years.

The last section of our survey dealt with the stic[...] biological questions of what sex you were and h[...] old. I think it's a shame that we have so few fem[...] readers, or at least ones who were willing to send [...] their questionnaires, with only 2.6 per cent [...] respondents wearing frocks (to our knowledge). [...] readers tend to be more mature than the dem[...] graphics would appear to show for other magazin[...] with a large number of respondents putting 'reti[...] in as their occupation, but the largest section of [...] are aged between 36 and 50.

We've picked a winner from the huge select[...] of entries we had. He's a sixth year student [...] Tilehurst near Reading and he has three Amiga[...] an A500 an A500+ and an A2000 – and likes [...] 3D graphics and a lot more. He's one of our 50 [...] cent that don't have a CD-ROM drive yet and [...] doesn't have a modem. So if Stefan C Young wo[...] like to get in contact with us, we'll see what we [...] do to give him a copy of his most wanted pack[...] – Cinema4D.

So, thanks very much for providing us with [...] information we need to continue to make *Am[...] Computing* the best magazine on the shelf and [...] can look forward to seeing changes based on y[...] desires in the near future.

all I *survey*

The results are in, the data's been collated, but just who has won our **ace prize** of a fortnight for two in a bin outside the MacDonalds in Clacton on Sea? **Ben Vost** will reveal all


Paul Overaa looks at a brand new sound synthesis program from Blachford Technology...

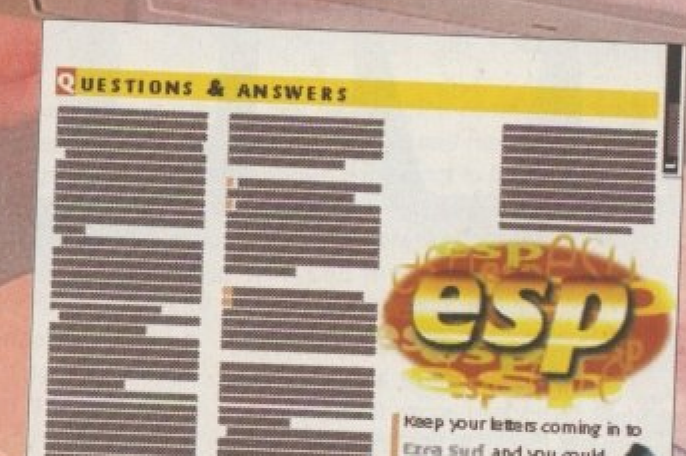
music

Aural Synthetica

File formats

Bottom Line

The Amiga Guide section, ready for a revamp?


Questions & Answers

esp

Keep your letters coming in to Ezra Surf and you could be a fifty pound prize winner

Excuses, excuses

Our letters pages seem to be very popular, but can only be expanded with your contributions!



Modem *living*

If you are baud stupid, **Neil Mohr** looks at the cream of the modem crop to get you out of your on-line blues

As a student I was privileged enough to have access to free high-speed access to the Internet, all thanks to the University I went to and paid for by the good honest tax payer. However, for most other people who want to get connected from home, money can start to play a key role in how long and how much you can participate. It's all fine and dandy for computer journalists and the big cheeses at large computer corporations to sing the Internet's praises if no one else can afford to get on line.

A large part of your total expense is going to be your phone bill. Apart from taking special offers with BT, Mercury or a local cable network company, possibly the most practical way of cutting bills is to buy the fastest modem. Ten or 15 years ago a 2400bps modem would have been considered an absolute luxury, but at these speeds a page of text is torture to watch download, never mind storage hungry Web pages whose sizes can easily reach the 100s of kilobytes mark.

Luckily technology never rests, and last year saw a plethora of 28,800bps modems swamp the market. These 'beasts' can handle around 3k a second on a good line and can make light work of downloading information on the Internet and bulletin boards. Recently, their prices have dropped dramatically so making fast access available to everyone. With most modems offering group 1 or 3 fax support along with some with fast voice/data switching there is plenty of choice for everyone out there.

Jargon box

Baud rate – refers to the amount of data the modem is currently handling. The baud rate is normally fixed but certain modems can have dynamic baud rates

BABT – any device that is to be used on BT lines should be BABT approved.

BT – one of the richest telecommunication companies in the entire world currently earning £90 a second. It's good to talk, for BT anyway

SPEEDCOM

The Speedcom modem is one of the older modem models in this roundup but speed wise it has aged very well. The 28,8 model comes with support for V.42 and V.42bis error correction and data compression, as well as having the ability to send class 1 or 2 faxes – as long as you have the correct fax software.

The casing seems a little plasticky but is styled quite nicely and the whole thing is very small, not much bigger than your hand. It has a line out connector to allow you to have a pass through phone, and the single power button on the top is well placed.



Due to it being a slightly older modem the Speedcom is currently available at a lower price than most of the other models, and for people on a very tight budget the 14,4 version represents possibly the cheapest modem available.

The manual that accompanies the modem is large and helpful, and for the beginner it is very useful in explaining all the modem terminology and the setting up process.

Like many other companies, Siren throw in all the leads and a couple of Amiga disks to help you get going. Ncomm comes on one disk and the other has a very comprehensive guide to using comms on your Amiga that supplies invaluable help for the beginner and a list of bulletin boards which have recently been overshadowed by the rise of the Internet.

Bottom line

PRODUCT DETAILS

Product	Speedcom
Supplier	Siren
Price	14,400 – £79.99 28,800 – £159.99
Tel	0500 340548

SCORES

Ease of use	100%
Implementation	80%
Value For Money	90%
Overall	90%

SPORSTSER VI



US Robotics have always been renowned for their quality modems and this latest one is no exception. The Sportster is a fairly compact affair, only marginally bigger than the Speedcom modem. The casing is made of a tough dark grey plastic and the whole unit has a very solid feel to it, and compared to US Robotics' earlier efforts the casing is styled quite well, with the usual bank of status LEDs furnishing the front of the modem. There is even a stand to allow you to use the modem upright and a usefully positioned power switch and volume control are placed on the side of the modem for easy access.

As for functionality, the Sportster has pretty much everything you would need, With V.42 and V.42bis error correction and data compression, as well as having the ability to send class 1 or 2 faxes. In use the Sportster proves itself to be one of the fastest modems around.

The Sportster also has voice mail support which would allow you to use the built-in microphone and speaker to send and receive spoken mails using your Amiga. Unfortunately, no software exists to allow you to take advantage of the voice mail standard which is a shame.

This is a great modem. It is very compact and supports all of the current standards. The manual seems a little brief, concentrating mainly on internal fitting to a PC, but as there is usually very little involved in setting up an external modem it is not really a problem. Probably the best BABT approved modem you can buy at this price.

Bottom line

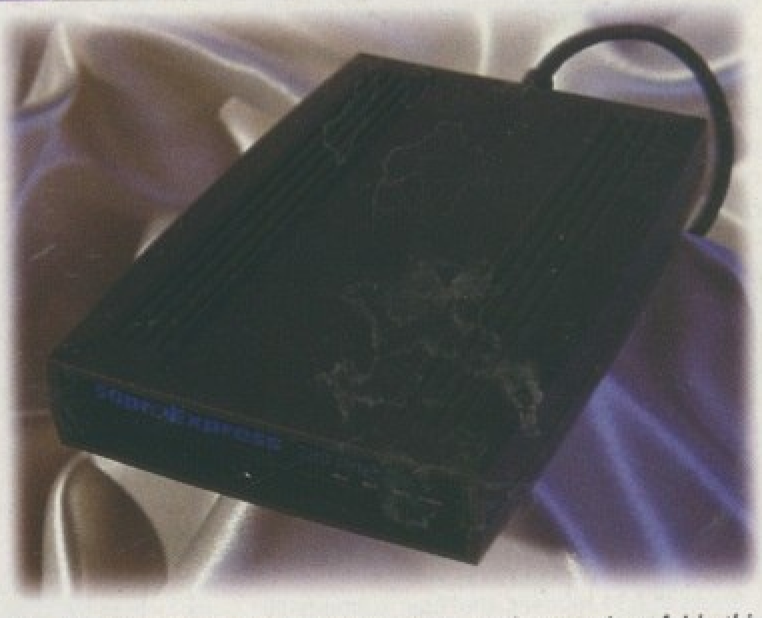
PRODUCT DETAILS

Product	Sportster Vi
Supplier	First Computer Centre
Price	14,400 – £111.95 33,600 – £193.95
Tel	0113 2319444

SCORES

Ease of use	100%
Implementation	90%
Value For Money	90%
Overall	100%

SUPRA EXPRESS 288



The SupraExpress is another tiny modem and comes in a fairly thin plastic case that does not seem very rugged and has only the barest of status displays on the front. However, it is meant to be a budget version of its big brother the SupraFax modem.

A couple of real plusses for the SupraExpress are the five-year guarantee that it comes with and the fact that Supra actually provide direct support for the Amiga. Admittedly, it is only an American help line, but there is also a specific Amiga e-mail address. However, if you are having problems with your modem this might not be too helpful!

I am not too keen on the built-in modem cable that comes with the SupraExpress. It is long enough but if you need to replace it you are either going to have to send the modem away or face the perils of replacing it yourself which would mean invalidating the five-year guarantee you get with Supra modems.

Bottom line

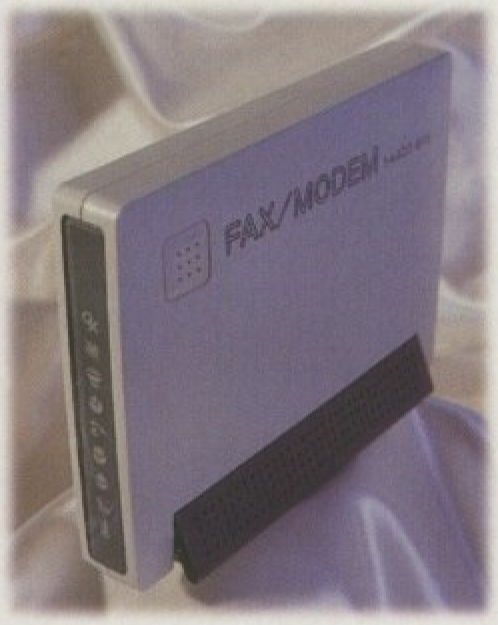
PRODUCT DETAILS

Product	SupraExpress
Supplier	First Computer Centre
Price	£153.95
Tel	0113 2319444
E-Mail	firstcom@firstnet.co.uk

SCORES

Ease of use	100%
Implementation	70%
Value For Money	80%
Overall	80%

X-LINK



A newer modem to the market, the X-Link comes in a fairly plain box. The model we had was cream coloured, and the colour compliments the Amiga casing, but a plain black one is also available.

The case has a couple of feet at the bottom that can be pulled out to allow the modem to be placed upright. On most modems the front is adorned with plain LEDs with a couple of initials to show you what it is meant to represent, but as a change the X-Link modem uses illuminated icons to indicate what is going on.

All the usual compression and data correction modes are supported, along with class 1 and 2 fax transmission and reception. Wizard can also supply the GP Fax software as part of the modem bundle for an extra £40. If you need to send or receive faxes then this is an essential purchase.

The X-Link modem comes with a very good manual that covers subjects from connecting up your modem to what every Hayes command is used for and how to use them to configure the modem. All the leads you need are included with the modem, and Wizard also throws in a bootable comms disk with Ncomm included. Therefore, you can start using your modem as quickly as possible. This is another BABT approved modem so you can use it on BT lines without fear of repercussions.

Bottom line

PRODUCT DETAILS

Product	X-Link
Supplier	Wizard Developments
Price	14,400 – £119.99 28,800 – £219.99
Tel	01322 527800

SCORES

Ease of use	100%
Implementation	80%
Value For Money	80%
Overall	80%

TITAN

Another new modem from Wizard, the Titan is a very well priced, high-speed BABT approved modem. Being BABT approved is important point because only BABT modems can be used on BT lines, and only BABT approved modems can be guaranteed to work problem free.

The casing of the Titan might not be the most attractive, but the metal casing gives the modem a very solid feel so it could probably handle a good bashing around – more so than many of the plastic cased ones.

As with all the other modems in the roundup, the Titan has a small amount of non-volatile memory in it. This allows you to store modem configurations and up to four phone numbers in the modem's memory, and will remain stored in the modem even when you power down.

Being a V.34 modem, the Titan supports all the usual baud rates up to 28,800 bps, and the usual V.42 and V.42bis types of error checking and data compression, as you would expect.

If you want the cheapest BABT approved modem the 14.4 version is excellent value for money, and as with all modems from Wizard you get Ncomm thrown in – which is perfect for connecting to bulletin boards.

Bottom line

PRODUCT DETAILS

Product	Titan
Supplier	Wizard Developments
Price	14,400 – £99.99 28,800 – £199.99
Tel	Phone: 01322 527800

SCORES

Ease of use	100%
Implementation	80%
Value For Money	80%
Overall	80%

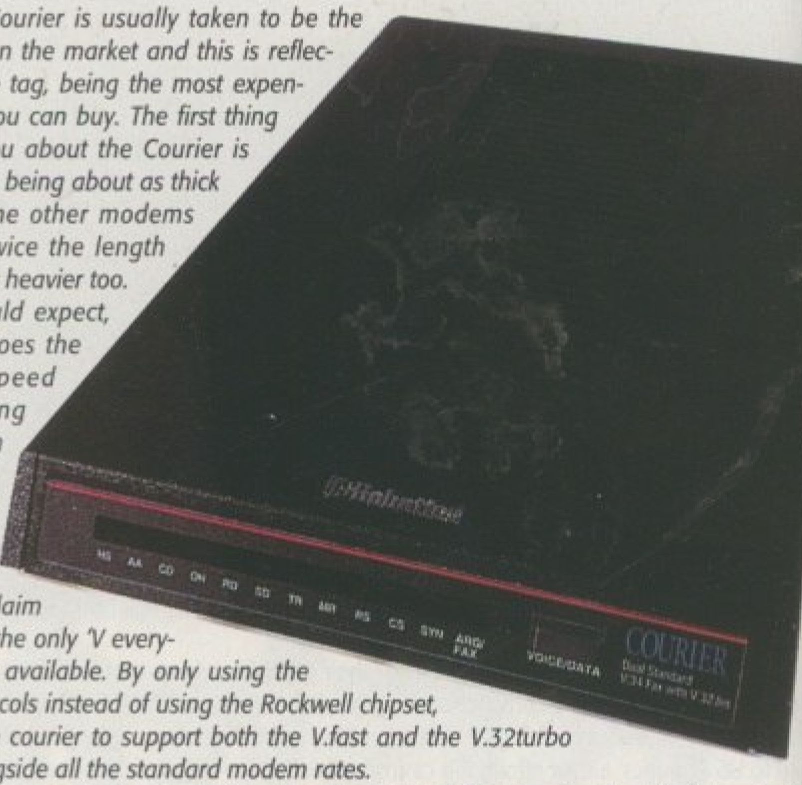
Jargon box

MNP 2-4/V.42 – these are standardised forms of hardware error correction that assure the data you are receiving is the same as the data sent out and no errors occurred during the long trip to your machine

MNP 5/V.42bis – standardised forms of data compression which can allow up to four times the normal amount of data to be transmitted and received by your modem

BPS – Bits Per Second, the amount of data in bits that pass every second

COURIER V34+



US Robotics Courier is usually taken to be the best modem on the market and this is reflected in its price tag, being the most expensive modem you can buy. The first thing that strikes you about the Courier is how large it is, being about as thick as many of the other modems but around twice the length and a good bit heavier too.

As you would expect, the Courier does the business speed wise producing the best in transmission rates, which is only to be expected as US Robotics claim the Courier is the only 'V everything' modem available. By only using the Rockwell protocols instead of using the Rockwell chipset, this allows the courier to support both the V.fast and the V.32turbo protocols alongside all the standard modem rates.

With the normal set of status LEDs along the front of the Courier there is the voice/data switch. This little gadget lets you quickly switch the modem between voice mode, allowing you to speak to the person on the other end, and data mode, where the two modems can transmit data between themselves. To use this, however, both modems need to have this feature.

The Courier also supports adaptive speed levelling that allows it to select the best possible speed for transmitting and receiving data independently of the other modem. Consequently, if the transmission rate drops you can still receive at full speed.

Overall, the Courier is the top-of-the-range modem and is the first choice for just about all the Internet providers, so features like adaptive speed levelling can be used when online to the Internet. The price of the Courier may seem high, but for the really serious comms user the modem will more than pay for itself in the long run.

Bottom line

PRODUCT DETAILS

Product	Courier
Supplier	First Computer Centre
Price	£287.95
Tel	£287.95
E-Mail	firstcom@firstnet.co.uk

SCORES

Ease of use	100%
Implementation	90%
Value For Money	80%
Overall	80%

Playing at home

So you've got a sequencer running on your Amiga and want to flesh out a full-blown recording studio? Then let Vic Lennard and Ofir Gal save you hours of heartache



Testing... testing... one, two, three... There's nothing quite like the feeling of firing up your own recording studio for the first time and hearing a voice coming back through your headphones.

What constitutes a recording studio? Well there's a question, and one that doesn't have an easy answer. If you're into techno music then your system may be an Amiga with, say, the Bars and Pipes sequencer, a MIDI interface, a couple of multi-timbral synths, a simple mixer, and a cassette deck for mastering – perhaps £1,000 all in. At the other end of the scale, recording pop music with instruments and vocals would require an 8- or 16-track recorder, a sophisticated mixing console, various synth modules, outboard equipment like reverbs, delays, gates and compressors, a selection of microphones, a separate booth for vocals and drums – and a second mortgage to put that little lot together! Yep, you could be talking about getting little change out of £40,000.

This feature will help you understand all the components of a recording studio so that you can decide what you need. While it won't present a procession of specific product names, it *will give you a reasonable idea of prices. So, on with the show!*

SOUNDS LIKE MIDI

Finding a synth you're happy with is not an easytask. With so many available, confusingly-named sound generation systems and misleading polyphony figures are just the tip of the iceberg. So let's look at what is required of a good all-purpose synth.

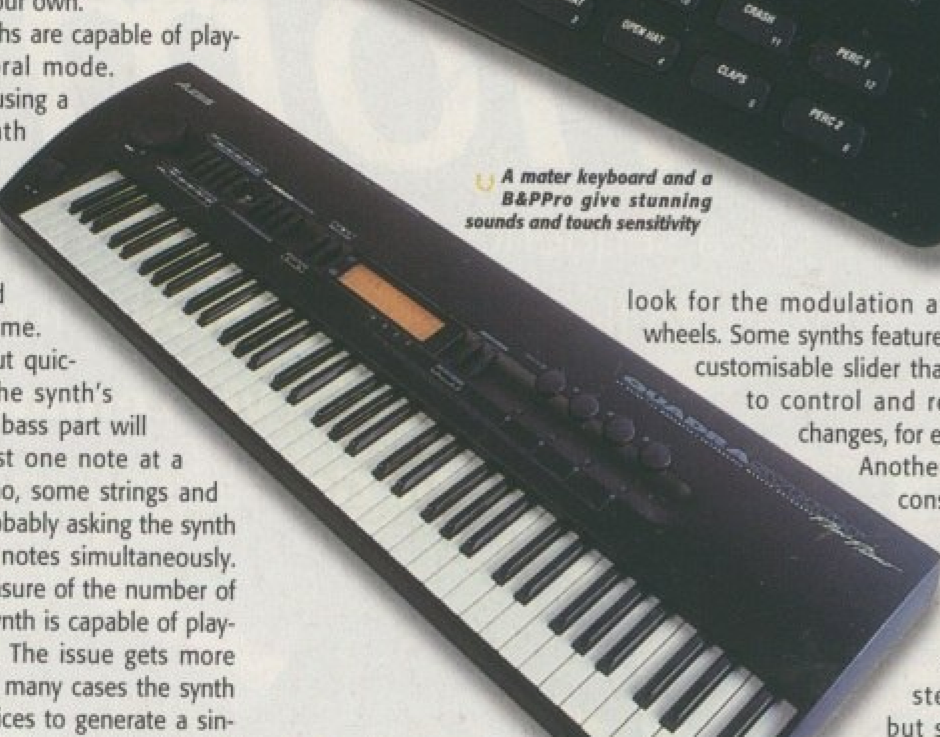
The first thing is to try it at the shop to see if you like the sounds. If you don't then there's no point going any further. The next thing to look at is how many sound presets are available and how many user-programmed sounds can be stored internally. After a while you're bound to get bored with the factory sounds, so you want to be able to create and store your own.

Most modern synths are capable of playing in a multi-timbral mode. This means that by using a sequencer, the synth can play a bass sound on one MIDI channel, a piano on a second, and strings on a third – all at the same time. This is very useful but quickly uses up all of the synth's sound generators. A bass part will probably require just one note at a time, but add a piano, some strings and brass and you are probably asking the synth to play ten or more notes simultaneously. Polyphony is the measure of the number of notes or voices the synth is capable of playing at any one time. The issue gets more confusing because in many cases the synth uses two or more voices to generate a single note to make the sounds thicker and richer. Just knowing that a synth has 24-voice polyphony is not enough – you want to look at how many voices are used to generate a typical sound.

Many synth models are available as keyboard-less sound modules and it's sensible to buy one with a good keyboard and then add sound modules as required. The synth with the keyboard will be your master keyboard, used to play all the sound modules, sampler and other MIDI devices in your studio, so look for a keyboard that feels right. There are several features to look for. First, velocity sensitivity is a must. A keyboard that doesn't respond to how hard you play will create monotonous and lifeless music. Aftertouch is less important, but can be just as useful. It works by allowing you to modify the sound by pressing the keyboard harder after your initial touch. Typically, aftertouch is used to add vibrato, filter sweeps, or other effects to the sound. Also look for the modulation and pitchbend wheels. Some synths feature a handy user-customisable slider that can be used to control and record volume changes, for example.



Quality percussion is a problem in any home set-up and this offers a solution



A mater keyboard and a B&PPro give stunning sounds and touch sensitivity

Another factor worth considering is the number of audio outputs available. Most synths have a stereo output, but some support additional outputs so you can separate a bass sound, for instance, from the rest. This is useful if you want to use different EQ and effects on the bass part. Finally, if you intend to buy or swap MIDI files, GM (General MIDI) compatibility is useful because it allows song files created on one system to be played on another with the minimum of hassle.

A sampler is a useful addition to any MIDI set-up. Although not essential, and generally more expensive than the average synth, a sampler can reach the parts other synths can't! With a few drum and percussion samples, your sampler becomes a dedicated drum machine. You can also use it to pinch short sections from records and loop them (well dodgy!), or to emulate the sounds of orchestral or oriental instruments. The main factors, apart from sound quality and polyphony, are the amount of RAM and hard disk space, and how upgradable they are. A drum machine is also handy – check out the Alesis SR-16 – but less important if you have a decent-sounding drum kit on your synth or sampler.

handy tip

Before you start buying your equipment, give half a thought to where you're going to put it all! Mixing desks and multi-track recorders are usually pretty heavy, so you're going to need a strong, flat surface. Think about using a table with a fifth leg fixed to its centre.

Most effects and MIDI equipment are of the rack-mounted variety – they're a standard width and have four holes for fixing into a rack. Are you going to use your equipment for live gigging? Then invest in some flight-cased racks. Otherwise, get the sloped kind on wheels – they're good for up to 26 units high.



Signal processing is vital if you're aiming for pro-quality end results

HEARING IS BELIEVING

You need to hear your music as clearly as possible. This means you'll need a good power amplifier, a set of speakers, and a pair of headphones. If you're on a tight budget you could use a Hi-Fi stereo system, but there's no substitute for decent monitoring equipment. Most Hi-Fi systems tend to colour the sound – mixes that sound great on your system will probably sound odd on your friend's.

A good amp and speakers designed for studio use has a flat frequency response and a clear, well-defined sound. When shopping for a power amp, get the most powerful one you can afford, with 150W per channel as a working minimum. There's a wide range of speakers on the market. Speakers can be very subjective and can sound very different depending on the room and amplifier used. In principle, look for the most efficient speaker: efficiency is measured in decibels per watt (dB/w) and the higher the figure the better. Three-way speakers that use three separate drivers are generally better than two-way ones.

When recording vocals or acoustic instruments your best bet is to use headphones. If you try to use the speakers you will have to battle with feedback and other problems. Walkman-type headphones will not do as they tend to leak sound that your microphone will happily pick up! Closed-back headphones are specifically designed for recording work and have a minimal amount of sound spillage – and cost upwards of £100.

Check your mixes on a variety of play-back systems. Even if it sounds good on your system, always try it on a car stereo and a ghetto-blaster. A good mix is always a compromise.

MASTER!

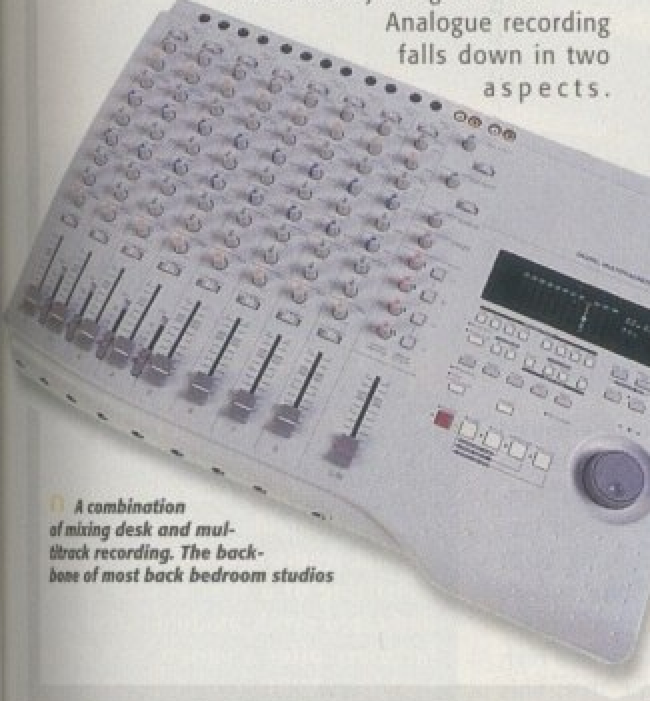
The last stage in the recording process is the mix. All the channels are balanced and EQed. Effects are added and the final stereo output is fed into a stereo mastering device. In the old days, people used to use a 1/4" or 1/2" reel-to-reel, but the standard today is the DAT machine. Originally designed as a consumer product, it found a home in the recording studio due to its superb audio quality. Sound is recorded as digital information onto a small cassette, similar to the ones used in camcorders. Tape length varies from 60 to 120 minutes. The more expensive models (£1,200 and more) offer extra features and better sound quality, but even the cheapest models (about £600) sound at least as good as a domestic CD player.

An alternative to a DAT would be a high-quality cassette deck – and you will probably want one anyway so you can make copies of your final mix to play to others. The cassette is not an ideal format as audio quality is relatively poor and tape can degrade very quickly.

TO TAPE OR NOT TO TAPE

Your most expensive purchase is likely to be the centre of your studio, a multi-track recorder. There are three options here: analogue tape; digital tape; or direct-to-disk. Analogue multi-tracking is a system that dates back to the 1950s. The tape width is divided into a number of equal bands, each of which can hold a recording. So, for instance, a Fostex R8 splits 1/4" tape into eight 'strips'. You'd be amazed what can be achieved with eight tracks – the early Beatles albums only used four tracks, and even Sergeant Pepper was recorded on just eight tracks.

Analogue recording falls down in two aspects.



A combination of mixing desk and multitrack recording. The backbone of most back bedroom studios

Firstly, the nature of magnetic tape means a degree of hiss is created on every recording. Secondly, mixing, say, three backing vocal tracks together onto a single track, commonly called 'bouncing', results in a poorer quality recording than the originals. Also, such a system will probably have to be obtained second-hand.

Digital multi-tracking seems to be the direction in which the medium budget market is moving. Starting with the eight-track Alesis ADAT system and the lookalike Fostex RD-8, a studio can now have eight tracks of sparkling digital recording on a standard S-VHS cartridge. You can even use more than one unit to get multiples of eight tracks and have them running in time with each other by the addition of a small external piece of hardware.

Disadvantages? Very few, aside from the price tag – around £3,000 against an equivalent analogue system costing around a quarter of this second-hand. Play-back quality is stunning, although you have to be careful not to have too many noisy items in your system – such as cheap synths and effects units.

The third possibility is direct-to-disk. This may be based around a computer system, or can be a stand-alone product such as the Fostex DMT-8. Fifteen hundred sovs will buy you a digital workstation with eight track capability, a 540Mb internal hard disk for about 12 minutes'-worth of eight-track recording, cut, copy and paste editing similar to working with a MIDI sequencer, two-band EQ, and a fully-functional eight track mixer. This would cut down on the cost of a decent spec mixing console. Other companies are also getting involved with such products such as the similar spec VS-880 from Roland.



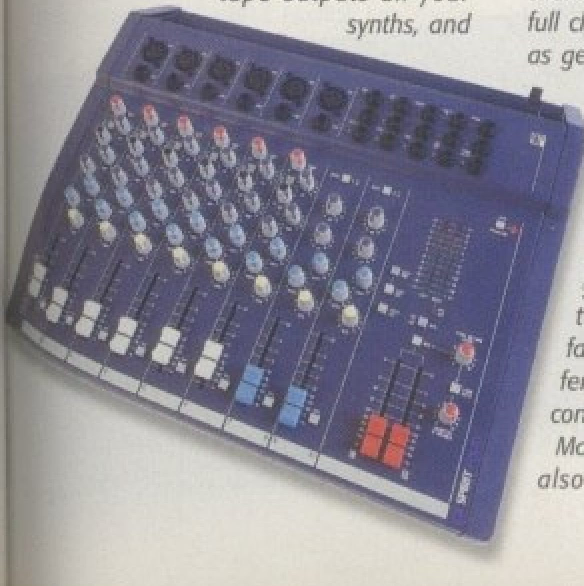
Higher than CD quality – but it's expensive

Disadvantages? In a word: backing up. The DMT-8 has no expansion port for a second hard disk so you have to transfer your song data to a DAT recorder once the internal hard disk is full. This means relying on a tape-based medium for long-term storage. The VS-880 has a SCSI socket to which you could attach a CD-R recorder like Yamaha's CD102 and so burn the data to a CD – a more reliable option for those with more serious aspirations.

IN THE MIX

Your mixing desk is the nerve centre of the recording studio. Ideally, all your microphones, synths and effects units should be plugged into the desk along with the inputs and outputs of the multi-track recorder. Using the desk you can adjust the volume of individual instruments, change the sounds by using the equalisation (EQ), and add effects such as delay and reverb.

Most mixing desks share a similar design where each strip on the desk represents one audio channel – but there is no relationship between the number of channels on the desk and the actual tracks on the tape. In a typical MIDI-based studio, you have some audio on tape while your sequencer runs in sync with the tape. This allows you to have your MIDI gear playing along with the multi-track without occupying precious tape tracks. The tape outputs all your synths, and samplers in this set-up must be connected to the desk which means your desk has to have enough channels to match. The more, the better!



Apart from the number of channels, you need to look at the number of auxiliary sends, also known as effects sends. These are used to feed a channel's signal into a global effects unit, allowing it to be used on more than one channel at a time. The number of effects sends determines the number of effects units you can use. Another useful extra found on some mixers are effects returns – regard these as bonus channels. They normally lack many of the features of the regular channels, such as EQ, but allow you to spare full channels for more demanding tasks such as getting a good sound on your drums and vocals.



The all important mixing desk. If you can't run your sound through an EQ and mix the end result with the rest of the tracks you're in real trouble

Each channel should offer some EQ to allow you to control the sound. EQ in its most basic form consists of a pair of bass and treble knobs, such as those you would find on any Hi-Fi. If your budget allows, try to go for a system that features a mid-range control with a sweep facility. This addition can make a vast difference to the end result, giving you fine control over the sound of each instrument.

Many microphones require external power, also known as phantom power, which is supplied by the desk via XLR connectors. It's useful if the desk can supply this power, at least on some channels. The better mixers feature a set of insert points that you will also find at the back of the desk. Insert points are used to put an effect unit such as a compressor or a noise-gate into the signal path – useful, but not essential. The meters are often overlooked by the beginner, but the professional recording engineer knows their value. A good metering system allows you to record at the optimal level and get the best quality out of your equipment.

One additional item you should consider is a patchbay unit. This consists of a few rows of jack sockets similar to an old telephone exchange. All the audio inputs and outputs in the studio go into the back of the patchbay, and you can then connect any two devices by simply patching the two corresponding points at the front of the patchbay with a short lead. It may seem low-tech, but it'll make your life a whole lot easier!

For an eight-track system, you'll need a 12 or 16 input desk – and this will set you back between £600 (for a four group desk) and £2,000.

TESTING, TESTING

Unless you're going to work solely with MIDI, you're going to need a microphone or two. There are two main types: dynamic and capacitor.

A dynamic mic, also known as a moving coil mic, has a small, circular diaphragm attached to a coil of wire that is fitted into a tight gap in a magnet. Sound received by the diaphragm makes it move and generates an electric current that is amplified by a special mic pre-amp. The main advantages are the low cost and rugged nature – you can record almost any instrument, including a bass drum, with one of this variety. The disadvantage is the inefficiency, leading to a generally poor response – it's very difficult to record the breathy nature of a vocal. Check out the offerings from Shure, Beyer Dynamic and AKG

A capacitor mic uses two plates, one made from metal and the other from a thin piece of plastic with an ultra-thin metal coating. Such a mic requires external power from either a 48 volt phantom supply on the desk, or sometimes an internal battery. Advantages? Superb recording, including every nuance of a voice or instrument. Disadvantages? Mainly price – a good condenser mic will cost you upwards of £400! Favourite of the bunch is AKG's 414



They may not look impressive but goo mics are an essential

"...a good condenser mic will cost you upwards of £400! Favourite of the bunch is AKG's 414"

SQUEEZING 'N' SILENCE

Listen to your favourite current pop song. Does the kick drum sound ultra-even? Are there any odd extraneous sounds anywhere on the record? Does the vocal sound extremely breathy and present? The answer to all three of these is likely to be "yes" – welcome to the age of dynamic control!

What are dynamics? In a nutshell, it's the range of sound, from the quietest whisper to the loudest, percussive instruments. Analogue tape, whether it's a multi-track recorder or a cassette player, cannot cope with the kind of dynamic range that music produces, so the range has to be reduced. This is true even with most digital recorders – while a little distortion on an analogue machine may pass unnoticed, any degree of digital distortion will ring out like a chainsaw.

COMPRESSING

Top of the list is a compressor. As the name suggests, this reduces (or compresses) the dynamic range and tends to be used on individual instruments rather than across an entire final mix. Typical instruments that benefit from the heavy use of one of these are bass drum, bass guitar or synth, and lead vocals, especially with an inexperienced singer. Compression to a lesser degree can also be used on most real instruments, simply to keep the recording level within reasonable limits. Avoid compressing MIDI synths – most realistic sounds have already been compressed by the digitising process.

Most compressors allow you to use high compression ratios, upwards of 20:1. This prevents the output level from exceeding a set limit, hence the name used for this process – limiting. If you're intending to record vocals and instruments, get yourself a two-channel unit that provides both compression and limiting.

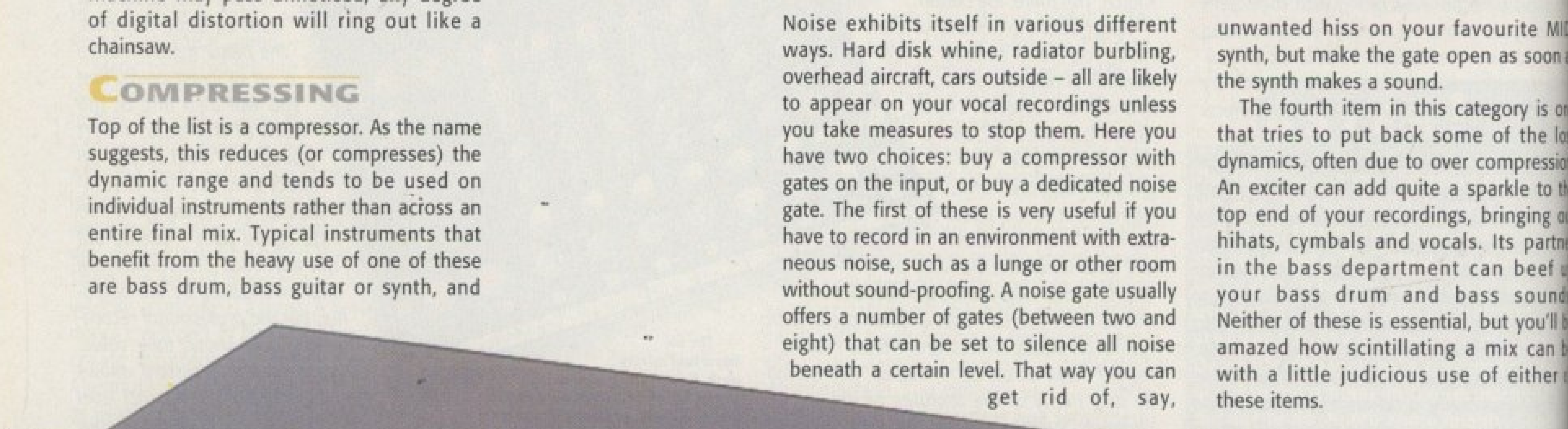
PREVENTION

Noise exhibits itself in various different ways. Hard disk whine, radiator burbling, overhead aircraft, cars outside – all are likely to appear on your vocal recordings unless you take measures to stop them. Here you have two choices: buy a compressor with gates on the input, or buy a dedicated noise gate. The first of these is very useful if you have to record in an environment with extraneous noise, such as a lunge or other room without sound-proofing. A noise gate usually offers a number of gates (between two and eight) that can be set to silence all noise beneath a certain level. That way you can get rid of, say, unwanted hiss on your favourite MI synth, but make the gate open as soon a the synth makes a sound.

The fourth item in this category is on that tries to put back some of the lo dynamics, often due to over compressio An exciter can add quite a sparkle to th top end of your recordings, bringing ou hihats, cymbals and vocals. Its partne in the bass department can beef u your bass drum and bass sound Neither of these is essential, but you'll b amazed how scintillating a mix can b with a little judicious use of either these items.

IN CONTROL

If you already play a non-keyboar instrument like an electric guitar there are various alternative MIDI con trollers available. Roland sells a MID kit that works with any electric guita consisting of a special pick-up and dedicated synth module. Other manu facturers offer a variety of MIDI con trollers – MIDI accordions, MIDI saxo phones, and MIDI drum pads fo example. Most of these suffer from various technical problems such a late response and inaccurate not tracking, so it's best to try before yo buy.



Compression and advanced signal processing add that all important professional touch to the mix

handy tip

Be careful when buying anything involving moving parts. Replacement of worn items such as these is very expensive both in terms of the parts themselves and the labour costs. If the saving of a second-hand item over a new one is reasonably small, go for the new item every time – better to start the system with less equipment, all of which is functioning properly, than an entire system that keeps breaking down.

- Sound modules and effects units: no moving parts and easy to check. Have a look at the MIDI In socket and around the on/off switch. Wear in these places shows that the unit has been heavily used. If a unit has an external power supply, check whether the cables going into it are damaged as such power supplies are often expensive to replace.

- Multi-track/cassette recorder: check the heads. They should be clean of tape residue and without any flat, worn surfaces. Record onto each track, play back, and check the sound quality. Is there any 'warbling' of the sound? If so, the heads are probably knackered.

SWEET FX



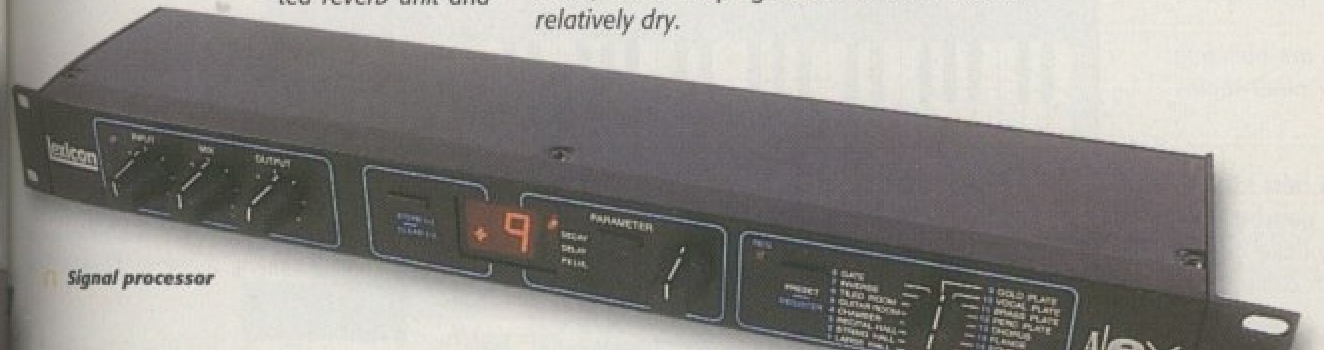
Left and below: Yet more signal processing power. Reverb, chorus and the rest are absolutely essential for serious recording. There's nothing in the world worse than a bone dry vocal or flat percussion. Buy one! You won't regret it

No studio would be complete without at least one effects unit to provide reverb or other sparkling offerings. The nature of the recording process tends to produce dry sounds that lack the natural echo and resonance of a room or a concert hall. A decent effects unit will let you place your instruments in a wide range of environments, from a small room to a long tunnel. This type of effect is called reverb. In the real world, reverb is the result of a large number of echoes that are reflected from the walls and furniture and bounce back and forth around the room. The result is a wash of sound where the individual echoes merge into each other. A digital reverb effects unit simulates this by sampling the incoming sound and playing it back in a complex cluster of echoes. Naturally, the more you spend on your reverb unit, the more natural sounding and flexible it will be.

There are many devices on the market that can do much more than just add reverb to your mix, such as the Alesis Midiverb 4. They can easily generate effects such as repeating echoes, ping-pong delays, pitch shifting, and a variety of doubling and flanging effects. All these can be used creatively to enhance the sounds you record. Automatic double-tracking (called ADT for short), for example, can be used to great effect on backing vocals to make them sound 'bigger'. Some units go a step further and can generate several effects at the same time. Such multi-effects units, such as the Alesis Quadraverb, tend to cost more but are very useful. Having one dedicated reverb unit and one all-purpose multi-effects device is probably the best compromise.

The nature of these effects require them to be mixed in with the sound. You would normally want to hear a mix of the dry sound and the reverb effect. Unlike compressors and noise gates which are normally connected via insert points, effects like reverb and echo are added by using the effects sends and returns on your mixing desk. Typically, a unit will have a pair of stereo inputs and outputs, but in most cases the left and right inputs are merged internally and you may as well use just the left one. The output, however, is true stereo on the majority of units and the stereo effect is crucial to the realism of the reverb. This output is usually routed into a pair of effects returns on your desk which should be panned hard left and right. If your desk doesn't have specific effects returns you will need to sacrifice two channels for this purpose.

An effects send works by feeding some of the sound into the effects unit which then produces the reverb or delay and sends it back via its outputs. By adjusting the amount of effects sends on the individual channels on your desk you can determine how much of the sound is fed into the effects unit and, therefore, how much effect will be added to it. This allows you to have a lot of reverb on, say, the snare drum, while keeping the bass drum sound relatively dry.



Signal processor

GIVE ME A LEAD

If you own a multi-track, some synths, a computer with sequencing software, an effects unit or two, a mixer, amplifier, and the various other items that go to make up a studio, you'll probably have 20 or so plugs to fit into, perhaps, a couple of mains sockets. Do you buy a few four-way mains blocks, some two and three way mains adaptors and cobble the whole lot together? No! Here's the right way to handle your cabling.

If possible, consider running a separate power supply from the fuse box to your studio and terminate it with an isolating switch. The advantage? A lack of mains-borne noises such as clicks from refrigerators and other pieces of equipment turning on and off. The isolating switch allows you to cut all electricity in case of an emergency. If this is impossible, consider building some small boards with mains blocks attached to them, each with a switch to allow you to disconnect that board from the mains.

OVERLOAD

Use good quality mains plugs that have a plastic sleeve on the positive and neutral pins, and also use decent quality mains blocks and adaptors (if you have to). While it may be difficult to overload the fuse in a block, it is easy for a plug or adaptor to pull half out – use a few extra blocks and avoid adaptors completely. And remember to label each plug with the name of the piece of equipment it is attached to!

The total current being drawn by your equipment will be nowhere near the standard 13 amps that is allowed for by a plug fuse. Work out the total current draw of your system by adding up the power figures for your gear (check the rear panels for each wattage) and divide by 240. Work out the current draw for each piece of equipment, get hold of a selection of low-value fuses (1, 2 and 3 amps), and substitute these for the standard 13 amp type.

This will ensure that should a fault occur with a piece of equipment drawing, say, a quarter of an amp, the fuse in its plug will blow first. All mains blocks should have 13 amp fuses so that you don't need to worry about the total current draw for all the equipment connected to this block.

When you turn on some pieces of equipment, the initial surge may draw more current than under normal running conditions. If you leave all your equipment on and then turn on at the wall, the instantaneous current draw could exceed 13 amps and blow fuses. Other damage is also possible when current surges occur. For safety sake, many people prefer to turn each individual piece of equipment on and off.

IN CONTROL

This feature has only scratched the surface of setting up and running your own recording studio. Here on this page are some final pointers:

- Subscribe to a decent music mag such as *Sound On Sound. This will keep you up-to-date with the latest bits of kit, plus educate you on your current equipment.*
- If you're just starting out, get a good beginners' book – *MIDI Survival Guide from PC Publishing (01732 770893). The author? Vic Lennard (shameless plug!).*
- Don't be in too much of a rush to spend all your money – buy the essentials and learn how to get the most from them first. Also, allow at least ten per cent of your total budget for cables (MIDI, audio and mains), patchbays, disks, tapes, cleaning kits, footswitches, mic stands and so on.
- Speak to people! Go to as many public music shows as possible to ask questions and test anything that interests you. Strike up a good relationship with your local music stores – make 'em feel guilty to rob you blind!

Above all, enjoy yourself – your music will be that much better if you're having a good time.

GENERAL MIDI

You may need to send your songs to other people purely as computer data. No problem: chances are your sequencer can save a song in the general form of a MIDI File. But how do you ensure that the person loading this song into their sequencer gets the same sounds as the ones you've been working with?

This is where General MIDI comes in. Any synth or sound module with the GM logo guarantees 24 simultaneous tones, 128 specific sounds, and drum notes mapped to certain keyboard notes.

If you need to transfer songs to other people, make sure you both have a sound module with a GM logo, or possibly Roland synths with the extended GS format.

GENERAL MIDI SYSTEM

For compatibility, look for the General MIDI logo.

MIXIN' IT

What do the various knobs on a mixing desk do? Here's a quick rundown:

- Mic/Line: lets you toggle between a microphone (amplified) or standard level input.
- Gain: adjusts the channel's signal boost.
- High: increases or reduces the top end (treble) of the sound spectrum.
- Mid: two controls. One increases or reduces the part of the sound spectrum selected with the second rotary.
- Low: increase or reduces the bottom end (bass) of the sound spectrum.
- Aux 1/2: feeds some of the signal to the Auxiliary outputs and on to effects units.
- Pan: adjusts the position of the channel's stereo picture from left to right, and feeds the signal to odd and even recorder tracks.
- Track buttons: select which of the eight tracks to record to.
- Fader: fine level control

PERFECT TIMING

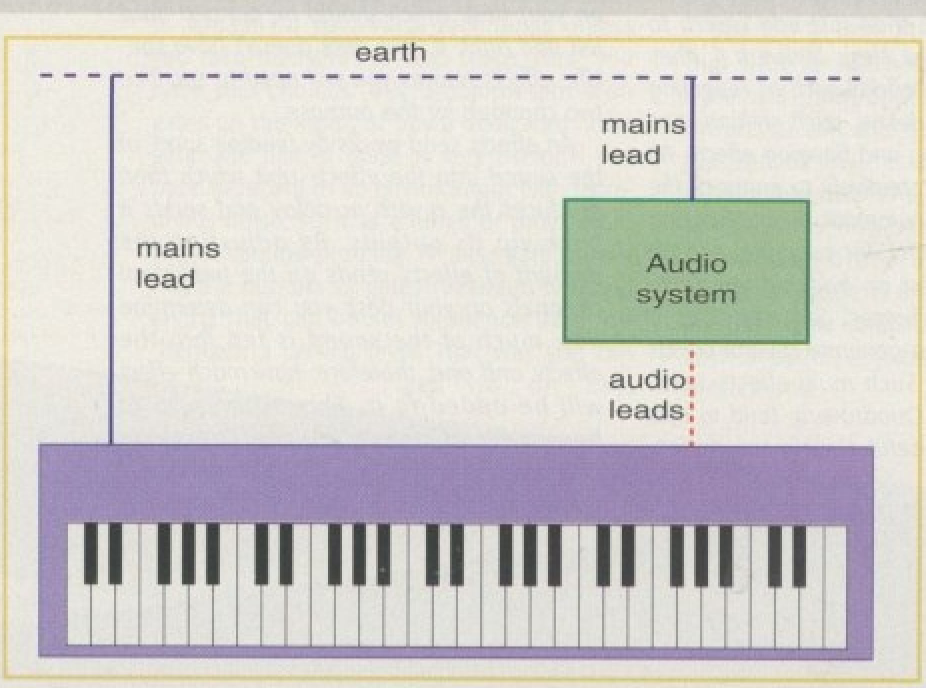
How do you keep your sequencer in time with your multi-track? By using a SMPTE to MIDI Time Code converter. This small box allows you to record a special code (SMPTE, pronounced "simptee") onto one track of your recorder and then translates this into commands your MIDI sequencer can understand – that's the MIDI Time Code bit. So when you fast-forward your recorder to a point part-way through a song, your sequencer will instantly move to the correct location.

While you lose a track on an analogue recorder, most digital multi-tracks have optional boxes that can output the MIDI Time Code without needing any special code on tape.

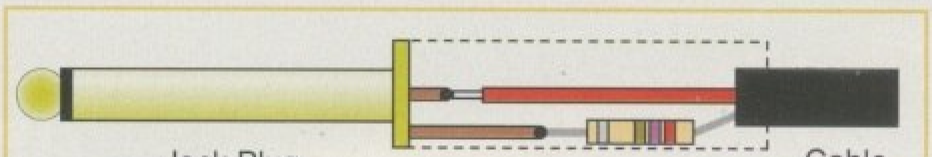
EARTH TO EARTH

A common problem is that of a low frequency hum coming from the loudspeakers – an earth loop. This is usually due to trouble with earthing in one or more pieces of equipment. A few tips:

- *Don't remove the earth lead inside a mains plug! Break the loop by ensuring the audio system is earthed and by having a 270 ohm resistor wired in line with the screen in the offending item's jack plug.*
- *Equipment can cause an earth loop even when turned off as mains and audio connections are still being made. If there are problems with racked equipment, remove the mains plug for each item and start racking them again one at a time.*
- *A common situation is where mains adaptors are built into plugs. The electrical field can be picked up by other mains leads close by – so-called 'proximity hum'.*
- *Try not to run audio, mains and MIDI cables next to each other. There are unlikely to be problems with good quality audio and MIDI cables, but mains leads can induce hum if the cable quality is poor. If you have to run such cables near to each other, make them cross at right angles.*
- *Beware of computer monitors. Audio leads run nearby invariably pick up hum from the radiated electrical field.*



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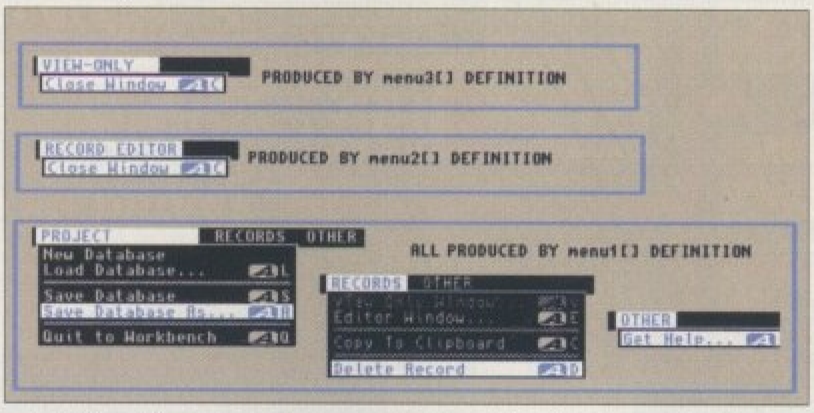
This month **Paul Overaa** takes a look at how the **EasyBaseAC** menus and gadgets were created

The topics on the agenda this month are the techniques used to create EasyBaseAC's menus and gadgets. Gadtools, the library that was introduced with Release 2 specifically to simplify the creation of Intuition-based user interfaces, plays a big part in these discussions and since the menu-related issues are easiest to understand this is where I'll start. Gadtool menu definitions are based on sets of data blocks called NewMenu structures that, for the C coder, can be described like this:

```
struct     NewMenu {
           UBYTE         nm_Type;
           STRPTR        nm_Label;
           STRPTR        nm_CommKey;
           UWORD         nm_Flags;
           LONG          nm_MutualExclude;
           APTR          nm_UserData;
};
```

The nm_Type field is used to specify one of three entry types: a menu title, a menu item, or a dummy 'end of menu' value. Standard definitions, such as NM_TITLE which indicates that an entry refers to a menu title, are available in the Amiga headers. The only other fields you need to know about are the nm_Label and nm_CommKey fields which are pointers to text strings containing a name and a keyboard shortcut for the item in question. All we need do to build a menu these days, then, is set up an array of NewMenu structures to represent the various menu titles and menu items we want... and let Gadtools do the rest. Take a look at listing 1 – the three arrays shown are all that are needed to define the complete EasyBaseAC menu system!

Of course, apart from the menu definitions we also need to get the menus displayed. A number of steps have to be performed here and I'll deal with them in the order they need to be carried out. Firstly, in order for Gadtools to be able to work its magic, information needs to be provided with details of the screen on which display items are going to appear. This is achieved by making a call to the Gadtool GetVisualInfo() function and on exit a corresponding FreeVisualInfo() function also has ➤



All these EasyBaseAC menus are produced by the NewMenu definitions shown in listing 1

```
struct NewMenu menu3[] = {
{NM_TITLE,"VIEW-ONLY  ",0,0,0,0},
{NM_ITEM,"Close Window","C",0,0,0},
{NM_END,NULL,0,0,0,0},
};

struct NewMenu menu2[] = {
{NM_TITLE,"RECORD EDITOR", 0,0,0,0},
{NM_ITEM,"Close Window", "C",0,0,0},
{NM_END,NULL,0,0,0,0},
};

struct NewMenu menu1[] = {
{NM_TITLE,"PROJECT         ",0,0,0,0},
{NM_ITEM,"New Database",0,0,0,0},
{NM_ITEM,"Load Database...","L",0,0,0},
{NM_ITEM,NM_BARLABEL,0,0,0,0},
{NM_ITEM,"Save Database","S",0,0,0},
{NM_ITEM,"Save Database As...","A",0,0,0},
{NM_ITEM,NM_BARLABEL,0,0,0,0},
{NM_ITEM,"Quit to Workbench","Q",0,0,0},
{NM_TITLE,"RECORDS",0,0,0,0},
{NM_ITEM,"View Only Window...","V",0,0,0},
{NM_ITEM,"Editor Window...","E",0,0,0},
{NM_ITEM,NM_BARLABEL,0,0,0,0},
{NM_ITEM,"Copy To Clipboard","C",0,0,0},
{NM_ITEM,NM_BARLABEL,0,0,0,0},
{NM_ITEM,"Delete Record","D",0,0,0},
{NM_TITLE,"OTHER",0,0,0,0},
{NM_ITEM,"Get Help...","H",0,0,0},
{NM_END,NULL,0,0,0,0},
};
```

Listing 1: The NewMenu structures used to provide menus for the three EasyBaseAC windows

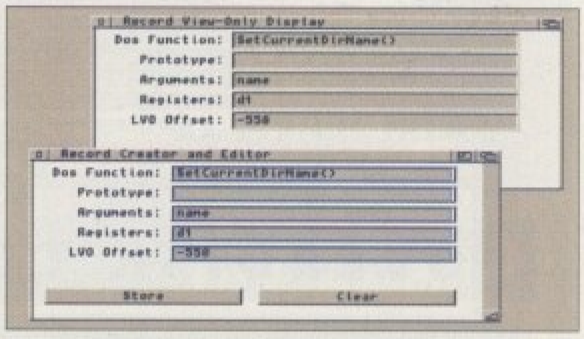
GADTOOL GADGETS

As well as simplifying menu creation, Gadtools also provides a set of routines for managing a whole range of gadget types – button gadgets, used for OK/CANCEL type operations, string and integer gadgets for text and number entry, checkboxes for on/off items and so on. The gadget type is identified by specifying one of the #defined types specified in the libraries/gadtools.h file. As with the Gadtool menu facilities, Gadtools gadgets are programmed at a significantly higher level than the Intuition library is able to provide. The function used to create a gadget is called CreateGadget() and it uses a data block known as NewGadget structure:

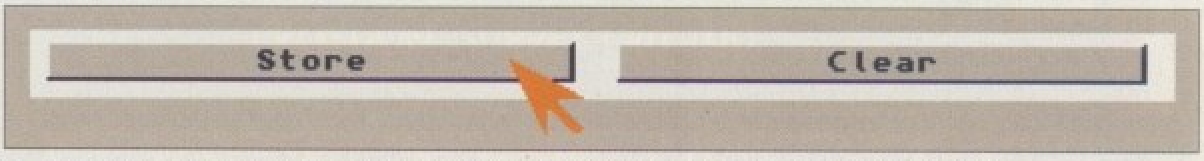
```
struct NewGadget {
WORD ng_LeftEdge, ng_TopEdge;     /* position */
WORD ng_Width, ng_Height;         /* size */
UBYTE *ng_GadgetText; /* gadget label */
struct TextAttr *ng_TextAttr;     /* font for label */
UWORD ng_GadgetID;    /* gadget ID */
ULONG ng_Flags;
APTR ng_VisualInfo;
APTR ng_UserData;      /* gadget UserData */
};
```

EasyBaseAC uses a number of Gadtool gadget types including sets of text-based gadgets for displaying the individual fields associated with database records. The window3.c module, the view-only window code provided last month, used TEXT_KIND gadgets which are essentially view-only string gadgets. The module for the record creation and editing window (provided on the coverdisk this month) uses STRING_KIND gadgets because these allow a user to type text into them. A couple of Boolean on/off type BUTTON_KIND gadgets are also used to provide the Store/Clear boxes that appear in EasyBaseAC's editor window.

The basic code for creating a single gadget involves throwing suitable values for position, size etc., into the NewGadget structure and making a call to the CreateGadget() function. All gadgets created using CreateGadget() need to be freed by using the FreeGadgets() function but, because Gadtools gadgets are automatically linked together, only one call to this function is necessary no matter how many gadgets eventually get created!



The text display gadgets used in both the view-only and the create/edit window may look the same but they are actually created using two different kinds of Gadtool gadgets!



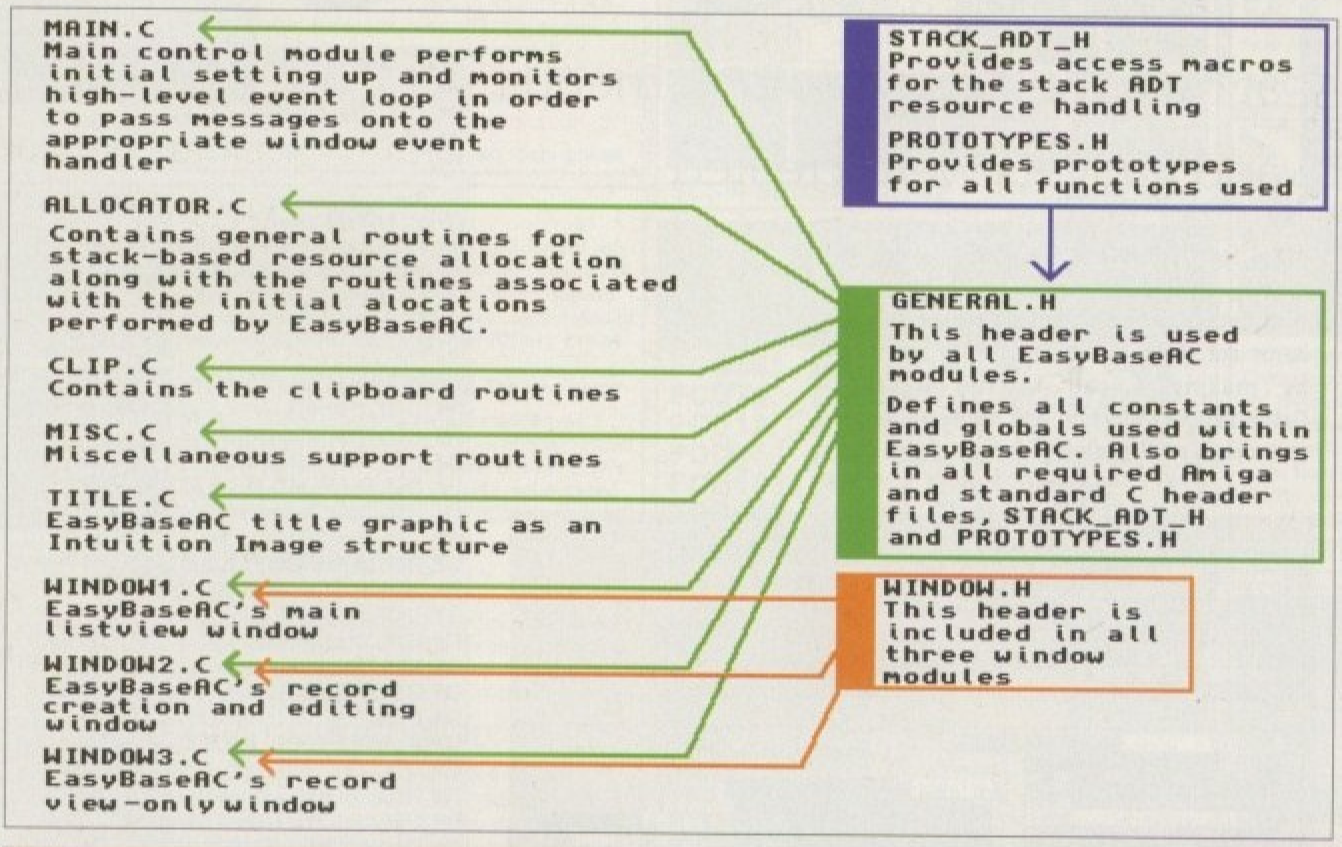
These Store/Clear gadgets used in the editor window are Gadtool BUTTON_KIND gadgets

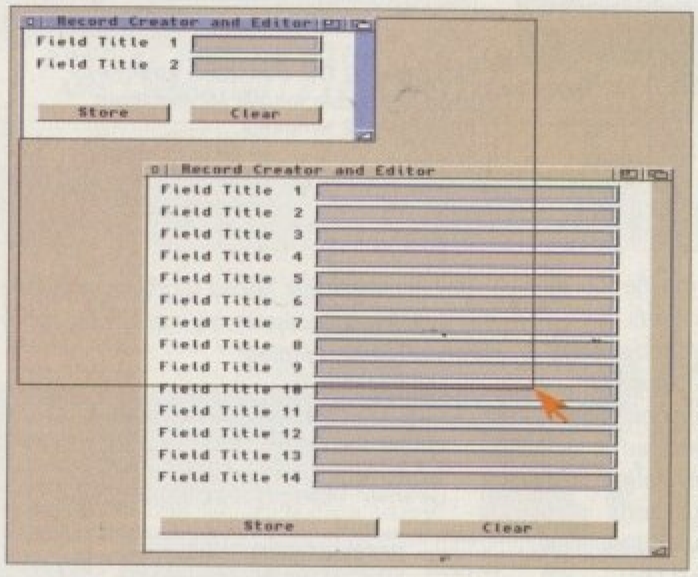
to be executed. Secondly a CreateMenus() routine must be performed. What this routine does is perform all the underlying Intuition-related menu structure setting up work. This call, too, must be coupled with a deallocating FreeMenus() function before a program terminates.

The menu structures created by the abovementioned library calls still contain no size or position information. With Gadtools this information has to be provided in a separate step involving a call to the LayoutMenus() library function, and again this call needs to be checked for success (although there is no corresponding deallocation routine to be performed in this case). Finally, the menu can be installed in the chosen window using the conventional Intuition function SetMenuStrip(). This function, incidentally, must be coupled with a ClearMenuStrip() call prior to the window closing.

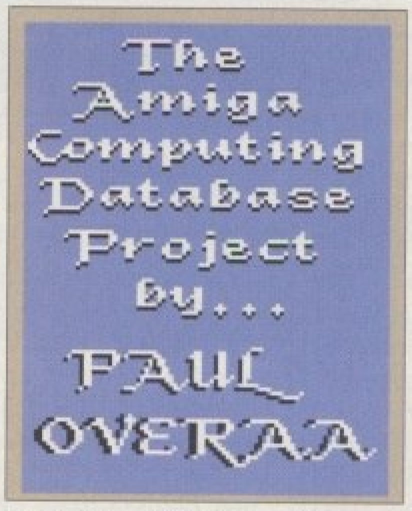
The unfortunate thing about what would otherwise be a fairly 'bearable' scenario is that we've got a whole load of library routines to perform, any or all of which could conceivably fail. If an error did occur we would have to ensure that only those routines that have been successful get their equivalent deallocation routines executed. This, incidentally, is why you'll find all this menu creation code embedded safely with each window's resource allocation/deallocation arrangements – if anything goes wrong and a window fails to open, I know that any steps that have been carried out as far as part-created menus are concerned will be automatically undone rather than left hanging.

This diagram shows the relationships between the various files which go to make up the EasyBaseAC program





When a user resizes the create/edit window the new window dimensions are used to calculate the number of gadgets that could be displayed



EasyBaseAC's title graphic started life as an IFF brush in DPaint!

GOING LOOPY

If you have gadgets whose NewGadget definitions have significantly different attributes, then it is perfectly acceptable to create a gadget set by building a number of separate NewGadget structures. Often, however, you may want to set up a series of related gadgets whose gadget structures differ only in, say, their horizontal or vertical position co-ordinates, or their text fields. In these types of cases it is unnecessary to set up individual NewGadget structures. Instead, a loop can be used which reads, or calculates, any fields that need to be set up, thereby allowing a single NewGadget structure to be used for creating a whole series of gadgets.

CALCULATIONS

This loop approach is important with EasyBaseAC for two reasons. Firstly, when a user resizes the editing window I do a calculation to see how many text or string gadgets could be displayed, store this value as the database field count, and then quickly close and reopen the window to provide the new display. When a new database is loaded the field count is again used in the gadget creation loop, so the number of gadgets that first appear is the same as those used when that particular database file was last saved.

There are a few other things about Gadtool gadget creation that need to be mentioned. Firstly, Gadtools needs to store a number of private data items relating to the gadgets placed in a window, and it stores this 'context' information in a dummy gadget which actually forms the start of a Gadtools gadget list.

Because of this, a call to a CreateContext() function needs to be made before any real Gadtool gadgets are created. Once the window is open it is also necessary to make a call to a GT_RefreshWindow() function which completes the rendering of the gadgets. You'll be able to see how I do this from the gadget creation routines that are present in the EasyBaseAC window modules.

COVERDISK CODE

On the coverdisk this month you'll find several files. One, called title.c, is just the Image structure for the title graphic that appears in the main EasyBaseAC window. You had to be given this file at some stage, and this month seemed as good a month as any since there is very little that needs to be said about it. The graphic started life as an IFF brush which took about two minutes to create using DPaint. It was then converted to the equivalent Intuition Image structure using Ken Howes freely distributable BrushCon brush converter utility, becoming the source file title.c!

You will also find the window.h header and the window2.c source file. This latter file contains the code for the editing window and what I'd like you to do is compare this with the view-only window3.c source provided last month. The thing to notice is that the overall layout of both sources are very similar in respect of allocation/deallocation arrangements, window opening, gadget and menu creation and so on. Needless to say, this is quite deliberate. You'll notice also that the menu and gadget event handling code also has a similar type of structure in both modules. Gadtool and Intuition event handling, incidentally, is the main subject on the agenda next month.

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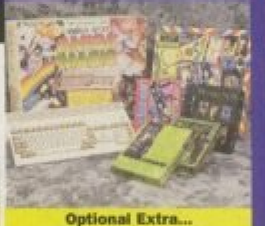
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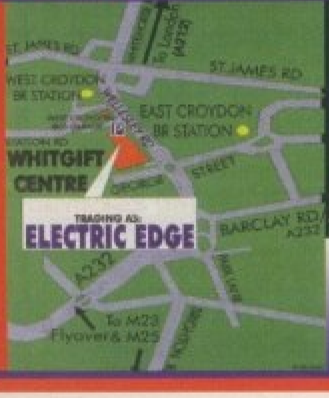
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beginners guide Part 6

In this, the last instalment, **Steve White** demonstrates essential software for you and your **Amiga**

Jargon box

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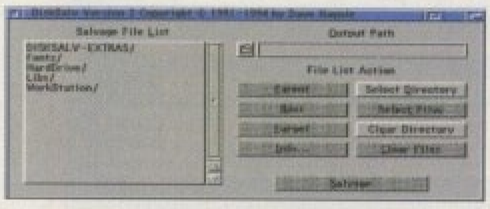
DISKSALV

Dave Haynie (Shareware)

The first thing that any Amiga owner should purchase is a hard drive – using Workbench from floppy disk soon becomes very irritating. However, the only problem with a hard drive is when it goes wrong. And when they go wrong you'll curse yourself for not doing more to protect your precious data.

Fortunately, much of the best application software is Shareware and often appears on the *Amiga Computing* coverdisks. One such program is DiskSalv – an excellent program that not only repairs hard drive faults but can also recover previously deleted files.

DiskSalv comes with an extremely user-friendly interface that will even allow you to repair and salvage files from floppy disks. You can be sure that your hard drive will choke at some time, so make DiskSalv your top priority – be prepared.



DiskSalv is an excellent program for repairing damaged hard drives and un-deleting previously deleted files. It's shareware too!

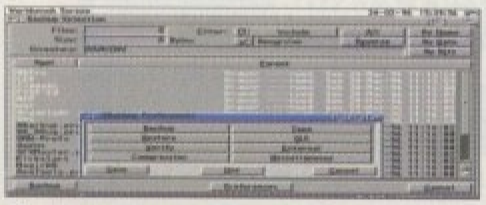
ABACKUP

Denis Gounelle & Reza Elghazi (Shareware)

Protecting your hard drive is one thing but it is also sound advice to back it up to floppy disks once every six months. There are many good programs that will do this for you but certainly the best, and it's shareware, is ABackup.

ABackup allows you to store any part of your hard drive onto a set of floppy disks which you can, if you wish, restore back to your hard drive at a later date – also via ABackup.

Just like DiskSalv, it comes complete with a very user-friendly interface which is self-explanatory, even for the beginner. ABackup will calculate how many disks you will need for your backup and even compress the files, therefore reduce the amount of disks required. Just like DiskSalv, ABackup is essential for hard drive users and if data gets damaged you will also have a recent backup to restore.



Keeping a regular floppy backup of your hard drive is essential and ABackup does it all for you with ease and speed

DIRECTORY OPUS

GP Software (Commercial)

Unless you use your Amiga solely for games, which would be a waste, all Amiga owners eventually have to dabble with files directly, whether it's deleting, renaming, copying or moving them. The only means Workbench provides to do this is the Shell which although powerful is not very user-friendly – especially for the beginner.

There are many good shareware file managers but by far the best is a commercial product called Directory Opus by INOVAtronics. Directory Opus has been around now for quite a while but it still retains the File manager crown holder. It is an excellent program that is completely configurable so as to provide the maximum power for your system, as well as an interface suitable for your own requirements. Directory Opus allows you to manipulate files in every way as well as many other functions including viewing pictures, playing sounds and editing text. The latest version is 5 but Directory Opus 4 is considered by users to be the best



Directory Opus 5 can act as a replacement for Workbench, although most users prefer Directory Opus 4

VIRUS CHECKER

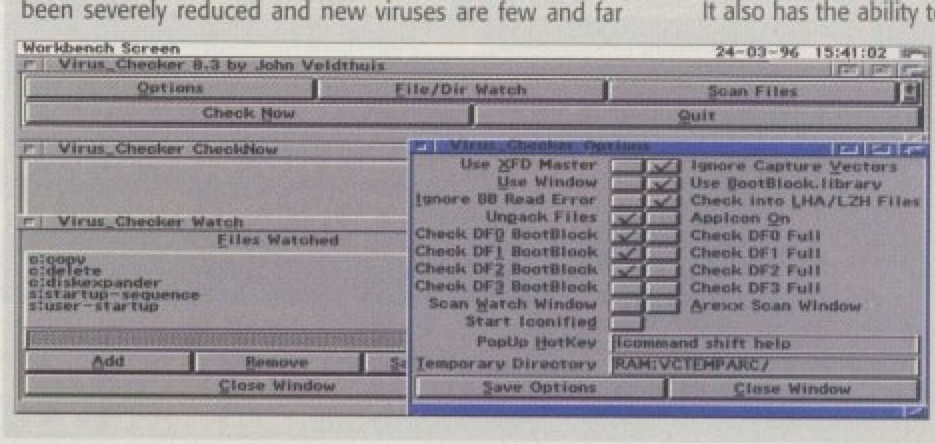
John Veldthuis (Shareware)

A virus is a specially written program that attaches itself to your hard drive or floppy disks and goes all out to destroy the data on them – usually accompanied by a message from the sad and lonely individual who wrote the virus.

The virus menace used to be fairly commonplace for Amiga owners but thanks to virus killers the spread has been severely reduced and new viruses are few and far between. However, it always pays to be cautious. Virus Checker, by John Veldthuis, is certainly the best and most up-to-date virus killer there is, and constant upgrades always ensure the virus threat is kept under control.

Virus Checker is an unobtrusive program that simply sits in the background of Workbench and waits for disks to be inserted in your Amiga floppy drives. It then checks them and if it finds anything suspicious informs you of the problem and asks you if you want it to be eradicated.

It also has the ability to check a directory and its contents for certain viruses as well as keep a constant eye on particular files that are vulnerable to certain viruses such as the Startup-Sequence in the S directory.



The virus menace is a serious one so keep your Amiga well-protected with Virus Checker by John Veldthuis

POWERPACKER PROFESSIONAL

Nico Francois (Commercial)

The floppy disk, and to some extent the hard drive, do have one major drawback and that is their capacity. A floppy disk will fill very quickly and, due to the large programs that it can take, a hard drive will also do the same eventually. Apart from deleting programs which you may not want to do there is little else you can do. Or so it seems.

PowerPacker Professional is a program which effectively squashes programs so that they are smaller than originally but still run. Although the programs take about an extra two seconds to load (big deal), you can make a saving of almost 50 per cent. This means that a hard drive of 85Mb could be packed to hold 160Mb. An impressive saving you'll agree. If you want to squeeze the most out of your disks or hard drive, PowerPacker is an excellent choice.



You can increase the storage capacity of your hard drive or floppy disks by compressing the files with PowerPacker professional

MAGIC WB

Martin Huttenloher (Shareware)

When you first get your Amiga, Workbench looks fairly dull – four colour icons and no background. Workbench provides plenty of programs to help you transform its look but they are still fairly limited with regards to design.

Magic WB is not a program but a brand new face-lift for Workbench which includes a collection of spanking new icons for every program on Workbench and a large array of backdrops for you to drop on your desktop and windows. The design work is excellent and gives Workbench that professional look it has always needed.

Also supplied are a series of new fonts as well as icons for floppy disks and every conceivable drawer you could ever imagine. For the full version you have to become a registered user (see the jargon box below), but the price is well worth it.



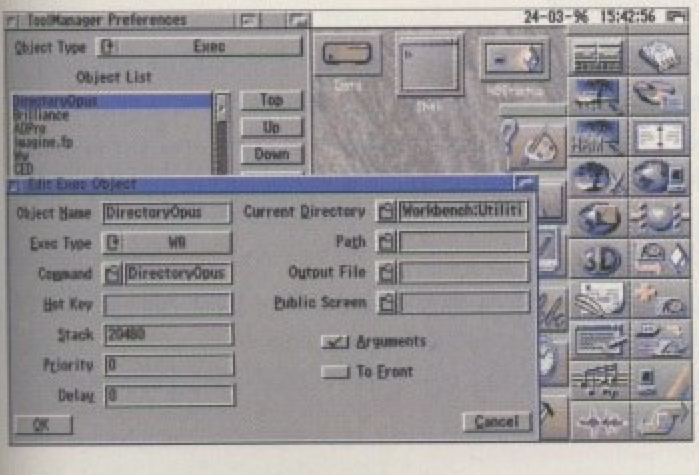
Bring your Workbench into the '90s with the excellent Magic WB – a replacement package of icons, fonts and graphic backdrops

TOOLMANAGER

Stefan Becker (Shareware)

ToolManager is an excellent shareware program that allows you to access programs at the mere click of a button on your Workbench desktop. You tell it which programs you wish to access and then how you want that program presented to you – either as an image on the desktop or as an addition to the Tools menu on Workbench.

This means you don't have to go wading through windows and drawers in order to access a particular program. All you have to do is click the program's ToolManager icon or select it from the Tools menu – ToolManager will do the rest.



To make your life easier ToolManager provides fast access by presenting programs graphically on the Workbench (see right side of screen)

Jargon box

Registration – *although most shareware authors provide software for free, sometimes certain features in a program are disabled to encourage you to register as a user. This normally involves sending a small registration fee to the user who, in return, sends you a special file (normally called a keyfile) that unlocks the disabled features. You are invariably also guaranteed free updates to the software you have registered.*

Compression – *compression is the means by which a program is compacted to a smaller size in order to make it more portable or to save space on a hard drive or floppy disk. Most compressors make the programs unusable until they are uncompressed, but PowerPacker compresses files so that they can be run, making it an excellent choice for saving space. Compression is also referred to as packing, crunching and archiving.*

DISK EXPANDER

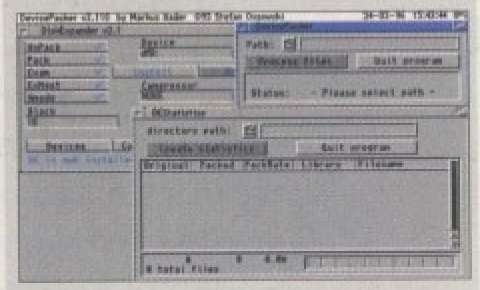
Stefan Ossowski (Commercial)

Although PowerPacker is excellent at compressing programs, its only drawback is that you have to load it every time you want to compress something. If you own a hard drive, DiskExpander is an excellent and powerful alternative.

Once installed, DiskExpander compresses everything on your hard drive and then sits forever in the background compressing and uncompressing files as they are copied onto and from your hard drive. This process is so quick that you will never notice it actually working.

There are several compressors available with DiskExpander which will allow you to alter the type of compression – fast but less compression or slow but high compression – to suit your own requirements, with the best balance increasing your hard drive's capacity by up to 50 per cent.

If you want to return everything back to normal, DiskExpander is also capable of uncompressing everything back to its original state as well as providing statistics on how well the initial compression performed.



DiskExpander can increase the capacity of your hard drive by 50 per cent by compressing and uncompressing files invisibly

OCTAMED

Teijo Kinnunen (Commercial)

If you have a musical bent you'll find your Amiga finely suited to producing not only sound samples but also producing complete musical scores quickly and with ease.

The best music editor available for the Amiga is OctaMED, written by Teijo Kinnunen, which is now at version 6. It allows you to load in samples and add them to a notation or track editor in what are known as blocks which can then be bolted together in any order to provide a complete tune.

OctaMED also comes complete with a sample editor which is almost as complete as a dedicated sampler package. You can even add special effects to your tunes and samples in order to spice them up a little. OctaMED also has a dedicated user group which provide free samples, tunes and information for members.

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Top 10 this week's top ten sites in each genre across the Net – with direct CGI links to the selected sites. Updated weekly.

Directory the entire collection of selected sites within the current issue of *The Web* magazine. Averaging between 60 and 90 sites per sub-section. Over 1,000 sites in total. Updated every issue.

News genre-specific news items – updated daily/weekly depending on content availability.

Site of the day today's premier Internet site – taken from the editorial content currently in production. Updated daily.

Search a built-in search engine enabling the user to do a full Internet search on any topic direct from the site.

Snippets the strange and the not so serious. The ultimate in genre-specific Internet trivia. Updated monthly.



Contacts direct e-mail and hyper-links to the people and resources detailed within the editorial. Updated as required.

Listings direct connections are the heart and soul of **Web Central**, with the combination of the Top Ten, Directory and Site of the day delivering instant access to over 1,000 of the Internet's premier sites. Every link is tried, tested, reviewed and scored by the Web editorial team.

Web Central goes live 1st May – make sure you're in at the beginning

As any Internet user can tell you, filtering the good from the bad is the most time consuming and expensive aspect of live online. Courtesy of our dedicated editorial team, the 1,000 plus sites included represent the very best the Internet has to offer.

Therefore, visitors to **Web Central** are guaranteed the very best of the Net, with regular updates and professional unbiased editorial providing a free and essential service for the Internet community.

Combine our leaders and listings, daily news feeds, reviews, features, competitions, feedback and essential software and you arrive at the first stop on the Internet – **Web Central**



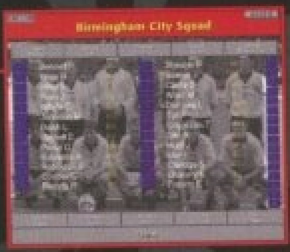
- Everyone's a winner – every single link has been visited, reviewed and scored by men, not machines
- Instant access – just select a site and hit the Go button. It's all automatic
- Don't waste time and money – go straight to the sites that matter. Save money and avoid the overload

SYSTEM

Your essential guide to Amiga gaming

Contents

System News



Andy Maddock looks at all that's new in the Amiga games world, and comes up with surprisingly little. Still, he writes well enough

Tracksuit Manager 2



We haven't had a football game for months and then two come along at once. Typical

World Golf



It's a long time since we had a golf game to review. We only wish it was good enough to challenge the likes of MicroProse Golf

Slamtilt



Pinball is a great game, little metal balls and buzzers and things. You even get bright lights and sound – it's great

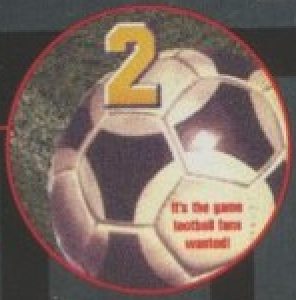
Data Disk Special



When we use the word 'special', it's because there are two data disks. If there had been a couple more we would have used 'round-up'

Previewed

Championship Manager 2



Hurrah! Hip hip Hurrah! It's here. Yes it's here. No, it really is here. Just have a look at this my son. Prepare to be amazed!

Featured

Ooh! Happy Birthday and that



Oh yeah. It's our Birthday too. We're 100 issues old, so you can send all your presents and cards to the usual address

Work In Progress

Pro Rugby

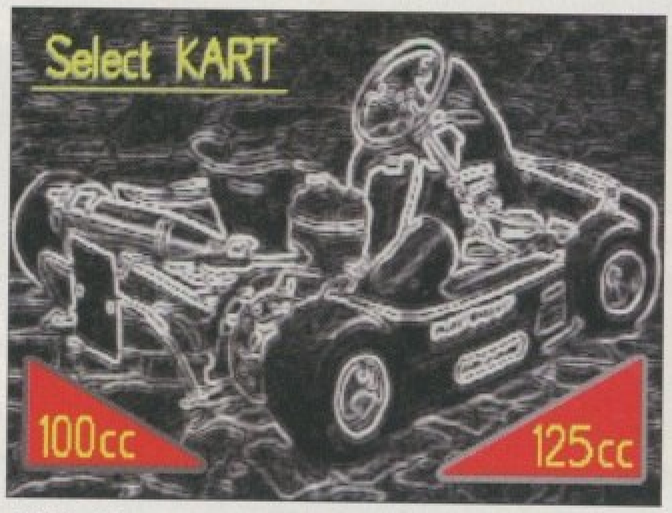


Rugger. Let's have a good old game of rugger with big dirty blokes with thighs the size of tree trunks. Er, I've changed my mind

By Andy Maddock

Virtual karting for £15?

OTM have decided to re-release Virtual Karting for Easter. They've also decided to set a new price which is £14.99. So hurrah for them.



OTM's Virtual Karting has gone even cheaper. A bit of a 'mare if you already bought it but otherwise... great!

A trophy cabinet

We have been assured we will finally have a preview copy of Atrophy very very soon – hopefully as soon as next month. To keep you in further suspense here's a piccie...



Here's the excellent title screen piccie from the interesting new shoot-'em-up coming soon

Footy's nearly gone again



Many football fans are already pulling their hair out as the football season is almost at a close and the final version of Championship Manager 2 is still not here. However, we have been promised we will have a reviewable copy next month.

Also, Domark are said to be 'moved' after all the response and patience they have been given. So remember – next month!

GTI Charts – March 1996

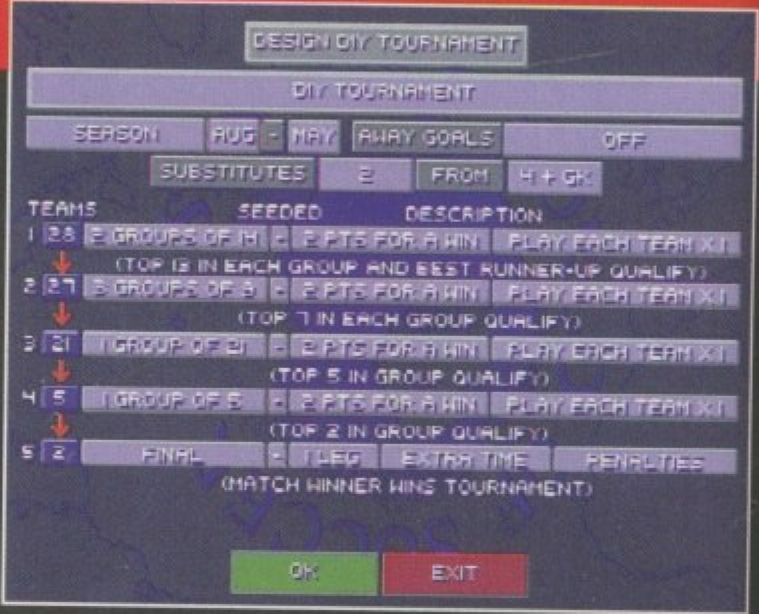
The big German distribution company have sent us their latest charts from March 1996 so you can see what the best selling games have been over the last few months.

Top Ten Amiga Games

1. Gloom Deluxe
2. Star Crusader AGA
3. Sensible World of Soccer
4. Breathless AGA
5. Slamtilt
6. Obsession
7. Worms
8. Super Streetfighter 2 AGA
9. Super Tennis Champs
10. Black Viper

Top Ten Amiga CD-ROMs

1. Aminet 10
2. Aminet Set 2
3. Meeting Pearls
4. Aminet 9
5. Gateway CD 2
6. Gamers Delight 1
7. Aminet Set 1
8. Amiga CD 3/96
9. Workbench Add On
10. Eric Schwartz CD



Sensible Soccer has a surprise entry at number three. Most people would believe it to be the best game ever... do you?

Hey look, I'm Bonehead now

Yep, our competition is hotting up as our mail bag is filling up to the top once again with more entries for our 'Song for the Amiga' competition. Actually, we won't tell you how many we got, but er, we could do with a few more. As I mentioned last month, the ones we have received are absolutely brilliant and we will announce the winner soon. Keep them coming! Come on, all you have to do is jot down some lyrics – it's as easy as that. You don't have to perform it if you don't want to.

Send your 'Song for the Amiga' to: Hey look, I could be Guigsy next month!, System, Amiga Computing, Media House, Adlington Park, Macclesfield SK10 4NP



The hills are alive with the sound of.. er sorry, wrong film

Oh dear

Last month we informed you about how to download a free demo copy of Alien Breed 3D 2, but we printed the wrong Internet address. If you did try entering the address on your Web browser, you would not have got very far.

I will come clean. It happened because I didn't have access to the Web to find the original address and planned to change it a later date. Sorry.

Oh yes, that magic address is definitely http://www.team17.com/team17/T17/ab3d/ab3dii.html

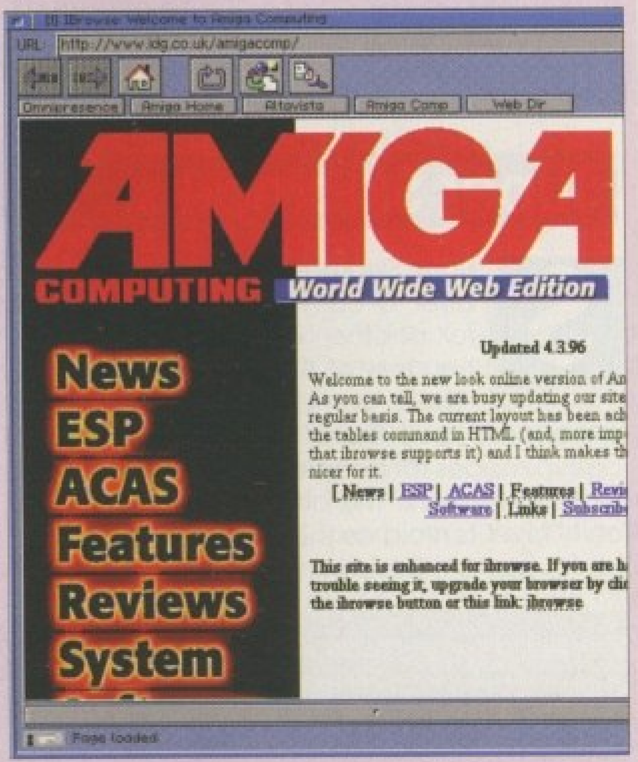


Here is the proof that we do know the address. It was purely an accident and meant no harm to anyone, OK?

The Internet is great

Although you may have read elsewhere in the issue that we have a Web site containing the news, ACAS, ESP and other features contained in the mag, did you know that System can be accessed too. Yep, you will find the latest news and possibly a review or too as well as a tips section which we are working on at the moment.

Let us know if you have any views or ideas you could put forward to make it special. Write to us at the usual address marking your letter 'System News.'



This is the fabulous AC Website where everything is ream

As you can see the charts are quite surprising. Sensible World of Soccer third best to Gloom and Star Crusader? Also, Pinball makes quite an appearance with the excellent Slamtilt and Obsession. And to top off the charts, at 10th place is a game we've never heard of, so there you go.

The CD charts are quite predictable with Aminet occupying four spots in the entire top ten including the top spot with the latest Aminet release. There is only one actual game CD which appears and that's Gamers Delight 1 which was far better than the sequel. The last spot is taken by the Eric Schwartz picture and animation CD which is, of course, excellent value for money.

Next month

Okay, so you've only just turned the first page of System and already you are looking at what could be coming next month. It doesn't matter though does it? Well, it's the first time we've ever done a System next month bit so it's quite exciting, isn't it?

Hopefully we'll have a full review of Championship Manager 2, XTR Data Disk, Legends, and we will also have previews of Atrophy and... well you'll have to wait and see because we promise it'll be another packed issue full of the latest news, reviews and previews as usual.

Reviewed by Andy Maddock

Data Disks

Timekeepers

GRAPHICS 90%
SOUND 89%
GAMEPLAY 90%
OVERALL 90%

PUBLISHER	Vulcan Software
DEVELOPER	In-house
PRICE	£5.99
DISKS	1
HD INSTALL	No
SUPPORTS	All Amigas

Vulcan Software have delighted us continually in the past with releases such as the excellent speech adventure Valhalla and more recently Hill Sea Lido, the seaside management simulation. This time their data disk is for the excruciatingly frustrating puzzle game, Timekeepers.

It was sometime last year when it was reviewed and for it's efforts managed to receive 80%, and quite rightly so. It was an excellent puzzle game destined to frustrate even the most patient of people. It was viewed from above the action and the idea was to guide these little things into this kind of hole. Sounds easy, but no. There were loads of obstacles and annoying gadgets that liked to prevent you from being successful.

The data disk has finally arrived containing 60 new levels over four different worlds, but the main area of improvement is the difficulty level. If you thought you were a bit of a professional then think again because the difficulty level has been increased tenfold. Along with the brand new levels there are slight graphical enhancements and no doubt it is generally made better. If you're a big Timekeepers fan, £5.99 is really cheap for the package and you could do a lot worse. So don't delay, update your copy of Timekeepers today.



There you see. Those little things right, you've got to get them in those little holes. Do you see?

Super Skidmarks

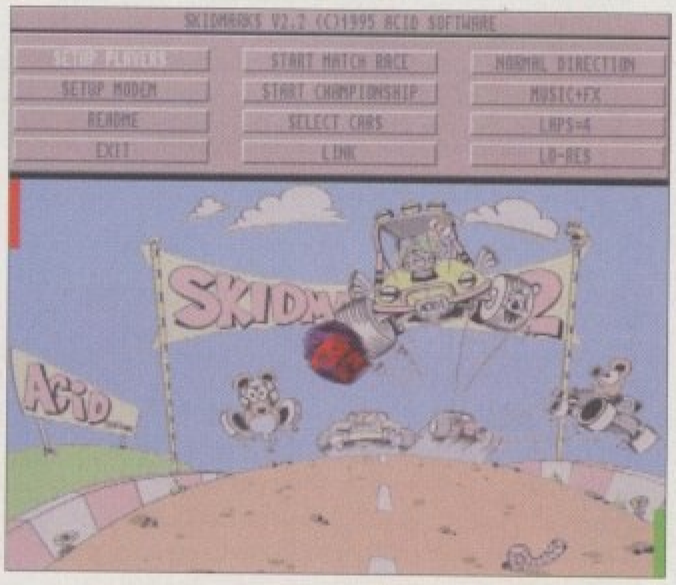
GRAPHICS 89%
SOUND 84%
GAMEPLAY 90%
OVERALL 88%

PUBLISHER	Acid Software
DEVELOPER	In-house
PRICE	£14.99
DISKS	4
HD INSTALL	Yes
SUPPORTS	All Amigas

Super Skidmarks. Is that what you get after a curry? No, it's the data disk for another excellent racer, this time courtesy of Acid Software.

There are 12 new tracks and loads more cars, and there are even new championship modes for people who saw Skidmarks as a walk in the park. This one will bump up the difficulty level tenfold as there are new difficulty levels for you to mess around with. And that's not all. The package comes complete with a hard drive installation script so you can, thankfully, add every single Skidmark disk into your collection – and when you buy this, there is a need for a hard drive. If you manage to swap this many disks you will end up with very sore hands and a red hot disk drive.

Whether this add-on is worth £15 is another matter. If you like Skidmarks enough then go for it. In my mind there's no better racing game of its type.



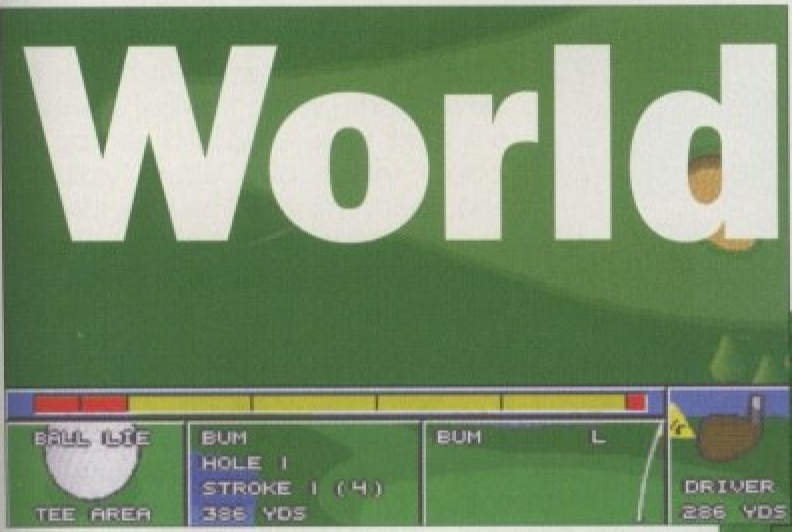
£15 for a data disk may seem expensive but if you like the game, it's like a present from heaven



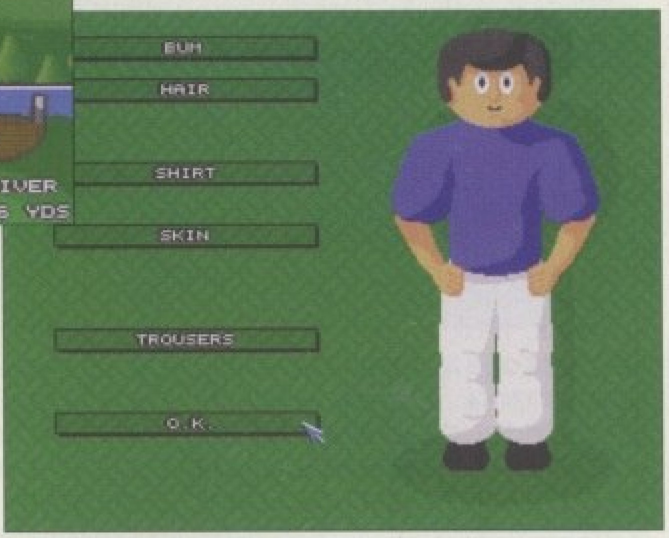
New cars and tracks are at your disposal so it'll be like a completely different game

World Golf

Reviewed by Andy Maddock



Do you rake the sand back after a bunker shot? I didn't think so. Has anyone ever nicked a rake? Write to us at...



I once got a hole in one in a game of golf. It took me three shots... so er, move along!

When this arrived in the post I had never been as excited as Christmas 1983 when I got a pet Donkey called Orbit. And that's true. And what was my excitement due to? Well, it was the fact World Golf arrived in a CD case. It had to be a game for the CD32, a game which would spring life into our now dusty and tattered 32-bit wild machine. Without haste I spent half an hour searching for a power pack to give the CD32 a new life. It was all set up. I was ready. I opened up the case to discover a cleverly made CD case which to my disappointment held... floppy disks!

After I was persuaded to come down from the office roof I sat back and though hard about the whole design concept. Some stationery meister somewhere in the world must have thought of this, and my one and only question is, why? To design a case to protect invaluable information stored on floppies in the shape of a CD case with exactly the same specifications surely must be one hell of a coincidence – or was it? It was partly my own fault as it did state 'Amiga 3 1/2" Disks' on the front.

So, golf then. It's not particularly a great sport in my opinion. But when I'm a middle-aged businessman with a Sunday morning round of golf to look forward to my opinion may change. As it stands, it's basically a chance to smash golf balls at people, blaming the results on the wind and forgetting to shout "fore." Apex Software are kicking off their Amiga game career with a golf game. It may not be the best choice although to be honest, we have waited for ages for a proper effort to follow Microprose Golf.

World Golf is viewed from a top-down, sidey kind of view. It's difficult to explain. Your little golfing sprite is about 10-15 pixels high and it looks as if the main aim is to make it more of a simulation for avid golfing fans than a graphical feast for any type of gamesplayer to pick up and play.

All the options such as clubs, direction and power are on screen and can all be fiddled with to enable you to make a half decent shot. The animation may not be quite what it should be but it's possible to live with it – you'll always be more conscious of where the ball's going rather than where it came from.

> ‘For a **keen golfer** all the options are there to make it as **realistic** as possible’



Golf is a great game. It uses these little white balls made from elastic bands... Amazing!

GRAPHICS	79%
SOUND	81%
GAMEPLAY	84%
OVERALL	84%

PUBLISHER
Apex Software

DEVELOPER
In-house

PRICE
£14.99

DISKS
2

HD INSTALL
No

SUPPORTS
All Amigas

What do you want from me?

If World Golf takes your fancy then why not order it via mail order. If you want to order by credit card call 0114 296 7825, or it's also available from:

8 Gosling Gate Road
Goldthorpe
Rotherham
South Yorkshire
S63 9LU
If you have any queries call the enquiry line on 01709 890552.

Final word

World Golf may not have the graphical advantages of delights such as Sensible Golf, PGA Tour or Microprose, but for a keen golfer all the options are there to make it as realistic as possible. There's also a nice little character design screen that certainly doesn't look like the one from Sensible Golf. Honest.

I'm pretty sure this will appeal to the golfing fans among you – although I'm not so sure about the neutrals. But, what the hell! It's only £15!

Live forever

Reviewed by Tina Hackett and Andy Maddock

Take our hand and let us lead you down the bright and cheery, yet sometimes cloudy streets that was and still is Gamer and System. Gamer, the laddish rock 'n' roll-type magazine, hit the streets way back in 1991 and was later replaced in 1994 when System appeared with a more serious approach (Ha!) providing readers with a more modern look and feel using an almost electronic design. Eventually we believed the design was way ahead of the times and decided to give it a more 'approachable' look, and this is exactly what you're looking at. Oh, Happy Birthday to us... Tra la la.

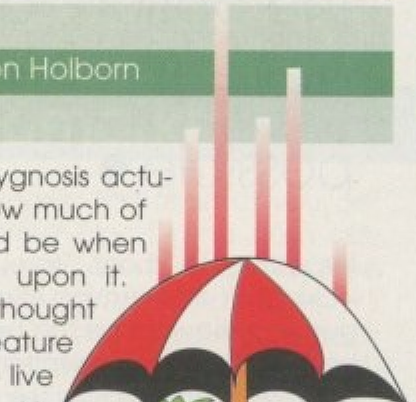
Over the past few years, Gamer and System have seen many members of staff as well as games. Some of them even came back to haunt us. Not the games – the staff. There have been good times and there have been bad times. Wait, no there haven't. We've had more good times than most and we continue to do so, bringing you the latest news, previews and reviews more than ever before. But before we do that, here are some of the best games ever to grace the pages of *Amiga Computing*.

Lemmings

Issue 36 May 1991

Reviewed by: Jason Holborn

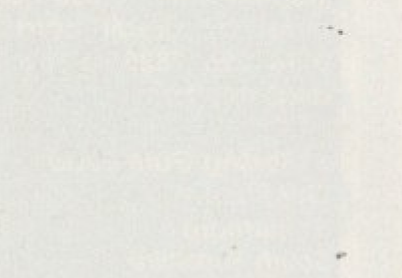
Score: 97%



I'm not sure Psygnosis actually realised how much of a success this could be when they first laid eyes upon it. Who would have thought such a bizarre creature with a bizarre will to live could have been so successful.

Lemmings boasted hundreds of levels of puzzle and problem solving teasers and was, and still is, one of the most frustrating games ever. Lemmings certainly put Psygnosis on the map and when it was brought out on other formats such as the PC, their success increased even more. It doesn't surprise me that Psygnosis are no longer. Where are they now? They're currently lapping it up releasing games for the Playstation and PC under the title Sony Interactive. Not bad considering their success has much to do with the Amiga.

This, along with Zool, was the highest scored game ever in *Amiga Computing*'s game's section, and whether it's still worth that is definitely much of a debate.



Zool

Issue 54 November 1992

Reviewed by: Ben styles

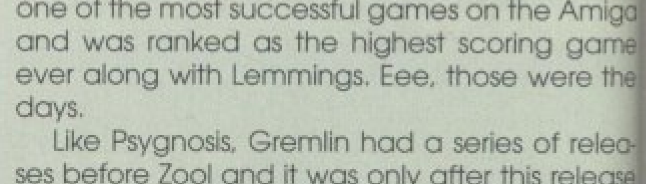
Score: 97%

I was never fond of Gremlin's platformer. I think it was because I was more interested in Sonic on the Megadrive – not that I should mention it here. However, Zool was a very big success and was certainly something to rival the Sonics and Marios of the world.

I know 97 per cent is a very big score but according to serious gamer guru Ben Styles, you wouldn't regret it. He was right too. Not many people, if any, regretted buying Zool, and it was one of the most successful games on the Amiga and was ranked as the highest scoring game ever along with Lemmings. Eee, those were the days.

Like Psygnosis, Gremlin had a series of releases before Zool and it was only after this release that you could really notice them beginning to take off – recently too, with other successful games such as Premier Manager 1, 2 and 3.

And to prove how popular it was, to this day I still wear my Zool T-shirt (Sad).



Secret of Monkey Island 2

Issue 51 August 1992

Reviewed by: Daniel Whitehead

Score: 95%



Back in the time of Monkey Island there weren't many other adventure games available other than the incredibly crude and, might I add, excellent Leisure Suit Larry series, and Police Quest and Indiana Jones.

US Gold were another big Amiga software house producing game after game of outstanding quality. They were noted for their film licences which, two years ago, used to arrive in abundance every day, although today it is a different story.

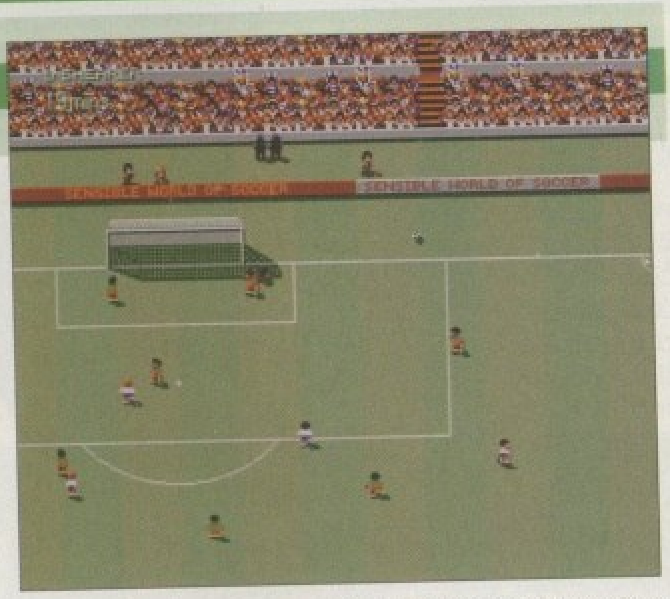
The game was one of the first to amaze gamers by producing a massive 11 disks to swap and change every so often. Back then, hard drives were much of a luxury while today they're nothing short of a necessity. So after swapping disks this many times, was it worth the wait? Of course it was, according to Daniel Whitehead who recommended that fans of the genre should seek it out without delay. A whopping 95 per cent was the final verdict and I still believe nothing has bettered it. Some have come close but nothing has touched it in terms of playability.

Sensible World of Soccer

Issue 82 January 1995

Reviewed by: jonathan Maddock

Score: 93%

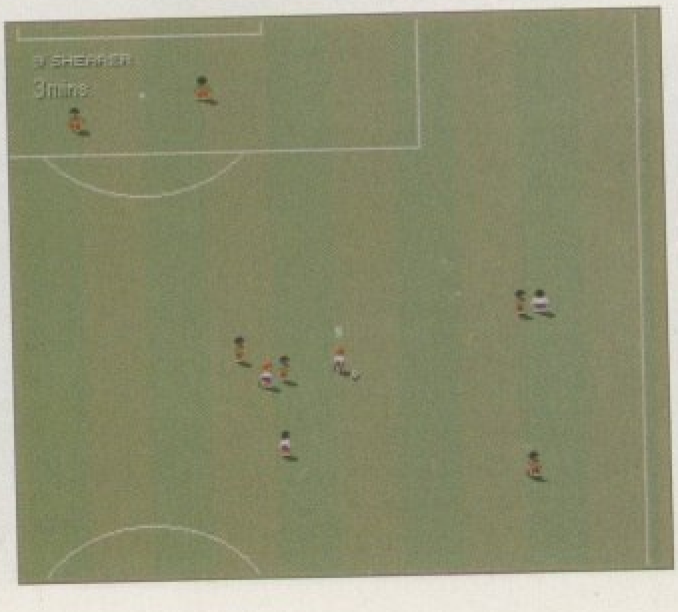


To me, this was one of the finest games ever on the Amiga. If it was up to myself, Sensible World Of Soccer would have received 98 per cent just to make it the best game *Amiga Computing* has ever had the pleasure to review.

Before SWOS there were a number of previous efforts, each one slightly better than the last and, of course, we must not forget the comedy Public Domain versions featuring Apples, Oranges, War Spacemen and my favourite, England versus Germany back in 1966, which, of course, is seen in black and white.

Don't forget there was life after SWOS. An updated version was available courtesy of Time Warner who are associated with Renegade, the previous publishers. And following that was their latest version, Sensible World of Soccer 95/96, which featured new options such as training and management records and was generally made better all round, which back at the first release seemed pretty much impossible.







Pictured above are former games editors Jonathan Maddock (Biff) and Paul Roundell who are now responsible for Gamepro & PSX-Pro



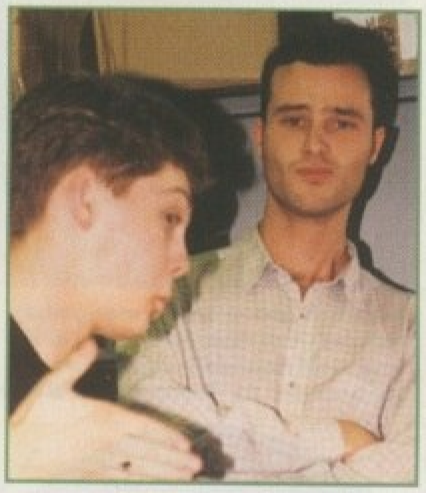
Simon Clays, who now works in London for another publishing house, used to be our in-house games expert



Adam Phillips previously wrote for AC and now surfs the Net for The Web magazine



This was taken from the 'Shortbread Incident' concerning Darren Evans, Dan Whitehead and Biff



This is exactly the type of photograph that may look funny at the time but I'm sure they are both desperate to see this one thrown away

Cannon Fodder

Issue 70 February 1994

Reviewed by: Jonathan Maddock

Score: 94%

This was another game by the successful team Sensible, this time employing little 'sensible men' to run around with big guns blowing up the opposition.

Back then the world was Sensible Software's oyster as they had a way of designing games with this fantastic new method. Sadly, it was only used for a sequel to this excellent game which didn't live up to expectations, and also a rather poor golf game which could have been so much better. It was a bad choice and Sensible Software then waved farewell to the Amiga market and made for bigger and better things.

Cannon Fodder received a highly acclaimed 94 per cent from Jonathan Maddock and was one of the many games to sport a 'Gamer Gold' logo which is a symbol that goes down as a significant point in history. The 'Gamer Gold' was priceless.

There was serious trouble afoot before the game's release. The slogan, 'War has never been so much fun' and the logo of a poppy resulted in Cannon Fodder being labelled 'monstrous' by an outraged Liberal Democrat. The 'Daily Star' labelled the game as 'shameful' and advised people not to buy it. This in itself generated more publicity than Sensible Software could have ever wanted.

In the end the poppy was removed and Cannon Fodder became one of the most successful games ever.

Flight of the Amazon Queen

Issue 94 Christmas 1995

Reviewed by: Tina Hackett

Score: 93%



Thanks to an imaginative setting, enjoyable puzzles and intriguing plot, it has all the ingredients to become a timeless classic."

Flight of the Amazon Queen is probably one of the most addictive adventure games to date. Set in the Amazonian jungle, the plot follows the exploits of Joe King, a pilot who is trying to rescue the glamorous film star, Faye Russell, and on his travels he meets various characters who will give him clues or objects to find. Although there was nothing particularly new about this, what was particularly good was that the storyline evolved as you went along and the puzzles, although taxing, were fairly logical. You didn't find yourself stuck in one area – you could always move on, solve something, then come back.

Binary Illusions and Warner Interactive chucked in a fair amount of humour, both visual and spoken gags, which made the title move along at an entertaining rate. The graphics looked pretty impressive too and it all gelled together very nicely.



Alien Breed 3D

Issue 94 Christmas 1995

Reviewed by: Andy Maddock

Score: 91%



Alien Breed 3D is, and always will be, one of the finest Doom clones on the Amiga."

Doom, Doom Doom. There have been no shortage of contenders over the last six months for the 'I'm Doom, but on the Amiga' contest, but by far the best (and I have this on good authority, well Andy's anyway) was Alien Breed 3D. Team 17 surprised us all when they announced that the latest in their series of Breed games was going to be from a 3D perspective, and despite cynicism that they were jumping on the bandwagon, we were all damn impressed. Sound effects added to the eerie atmosphere and the many collectibles added variety. A messy fest of blowing up aliens, walking around gloomy passages and trying to find your way through the mazes. Lovely.

Coala

Issue 95 January 1996

Reviewed by: Andy Maddock

Score: 91%

It's been a long time since we saw a flight simulator of this quality on the Amiga, and I can guarantee you won't be disappointed."

Not, as you might expect, a cute platformer about a cuddly critter from Australia but a helicopter action game. Developed by Bitfusion Virtual Realities and published by Empire, this virtual reality arcade simulation looked nothing short of stunning. The developers created an impressive 3D setting which gave you a highly realistic flying experience and not only that, playability was spot on too. Described back then by Andy as a cross between Thunderhawk and Desert Strike, there were many missions to take part in – these were set at different times, from dawn, noon, sunset and night. Artificial Intelligence was used to good effect too. For example, you could fly around the sky stalking other aircraft rather than getting blown up yourself. The mixture of simulation and arcade play proved a winning combination.

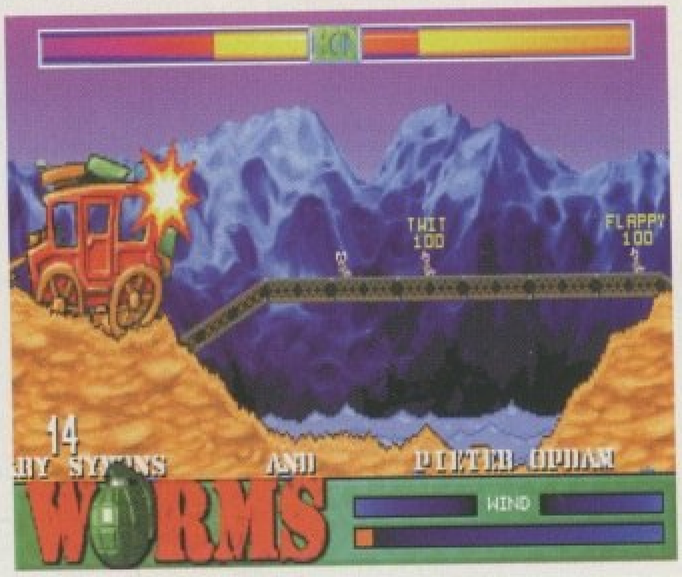


Worms

Issue 96 February 1996

Reviewed by: Tina Hackett

Score: 91%



Hours of entertainment from one game – who'd have thought that a garden invertebrate could be so much fun?"

Yes, you've probably heard the hype but even so it was a great day for the Amiga when this came out. It was released on all the new generation machines but what was it developed on? None other than the Amiga. The idea behind this was to control a team of worms against another team of worms who all have one mission in mind, namely to destroy the opposition. You could then choose from an array of weapons to blow the enemy into oblivion.

This game was kind of an up-to-date Scorched Tanks gameplay wise, but where this succeeded was with appealing graphics and nasty methods of destruction for the Worms. Cute little sound effects added to the appeal with the characters screeching 'Fatality' or 'Stupid' at appropriate moments. Brilliant, what more can I say?



Andy Martin, our previous games guru for Gamer, was unfortunately involved in a road traffic accident. We hope you get better soon mate, from all the AC crew

Hill Sea Lido

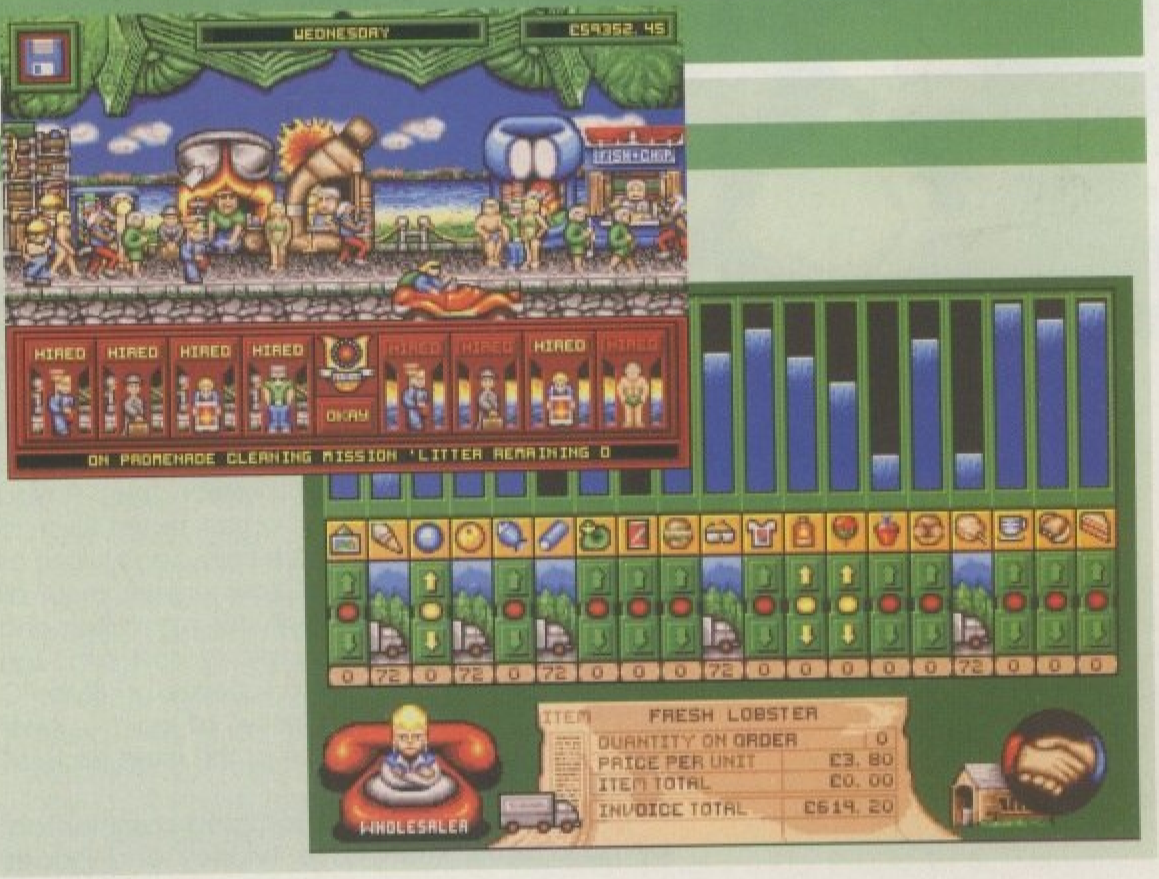
Issue 96 February 1996

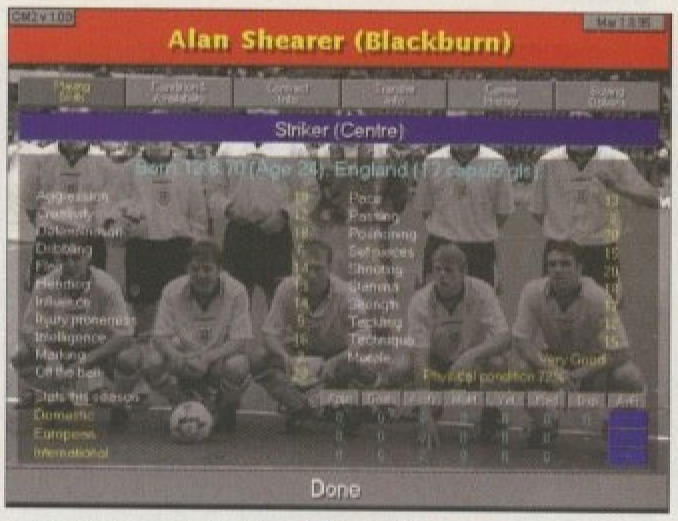
Reviewed by: Tina Hackett

Score: 90%

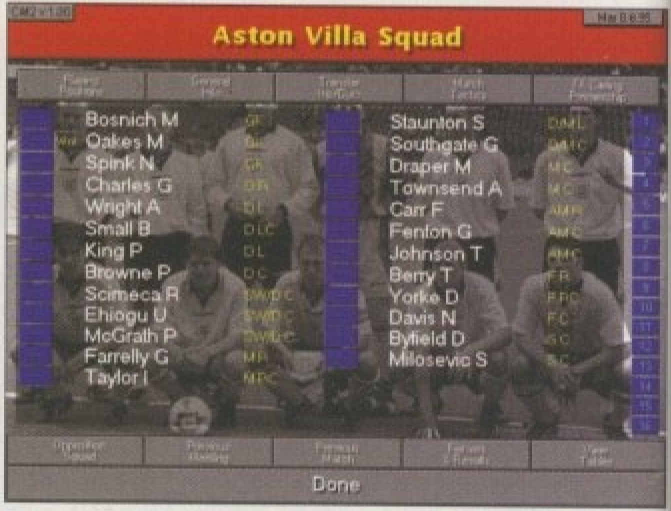
When this was released not so long ago it was a bit of a departure for Vulcan Software. Gone were the murky browns and greys they were so fond of and replacing them were bright colourful settings of the seaside. The game was Hill Sea Lido, a management simulator, and I don't mind admitting that this game had me gripped for many an hour when I should have been doing *proper* work.

The idea behind it was that you had to take a pretty desolate looking beach and promenade and turn it into little gold mines. It was something about the fact that you could buy rubber dingy stalls and set up candy floss counters all in the name of a 'serious' business simulation. Cute little animations mixed with making decisions about how high to set your prices and when to hire and fire staff made for a highly entertaining game.





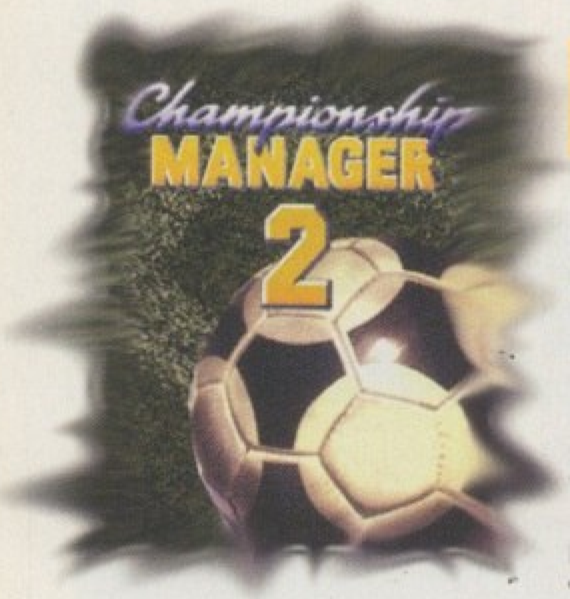
Would you pick Alan Shearer for your England side even though he's only scored a limited amount of goals for them?



Aston Villa – recent Coca Cola Cup winners. Congratulations and respect go out to them for winning a place in Europe

Championship Manager 2

Previewed by Andy Maddock



Is it my imagination or is it finally here? Why don't you just sit back and breathe a sigh of relief because Championship Manager 2 has finally arrived – the waiting is over. The game is almost completed and here's the preview.

Championship Manager was spawned a long time ago by a bloke named Oliver Collyer and he was responsible for presenting us with just about the best football game – well actually, just about the best game ever. It was so good that it even managed to sell 300,000 copies across Europe and when the update disks were released they were like gold dust everywhere.

Now the sequel is almost finished after being put back month after month. The official release date was 29 February and advertisements had been put around months beforehand. But then came the news that it would be put back another month. However, I'm sure that if anyone has had the chance to play the PC version then Amiga owners will be crying out to Domark to get them to take their time and make sure they don't rush it as it could spoil everything. PC owners will know all about lengthy waits especially for installation and for calculating results during mid-season, although how Domark will manage to squeeze an 8Mb PC game onto a 1Mb Amiga defies all logic – unless they decide to cut out some of the main features which would be disastrous.

The PC version contains sampled commentary by none other than Clive Tyldsley and boasts digitised pictures of every football ground in the country – obviously the Amiga version can do without these as they'd only take up disk space which isn't there anyway, but maybe it would be nice to say "Ooh, I've been there." or "I've stood there I have!" However, these so-called cosmetic changes shouldn't affect the actual game at all.



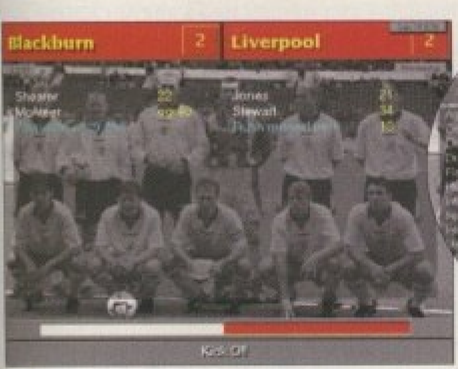
Birmingham – buyers of the extra large striker Kevin Francis from Stockport. We don't care, he wasn't that good anyway...

So what about the actual game? Well, there will be 4000 accurate player stats and histories just like the original, although this time if you manage to take your club team to a number of heights during your career you can expect the national

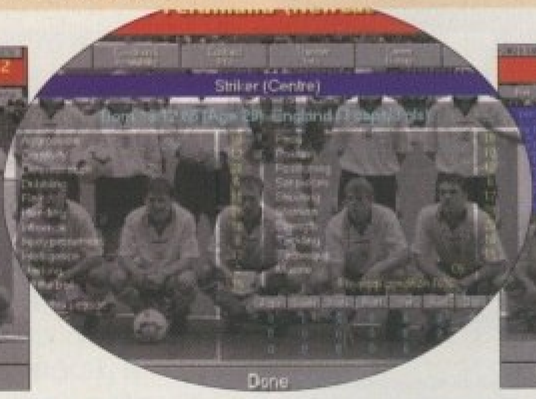
Chinese whispers

A fantastic rumour which is circulating the whole Amiga world is the ability to allow 92 human managers to battle it out against each other, so if you've got 92 close mates who promise not to trash your house when they lose then you must be pretty amazing to have such friends. So why the ability to have 92 human managers? It's not as though you can invite the entire pub round for a season or two. Is it for Play-by-Mail competitions whereby you can run a football management game via the excellent British postal service? Who knows... Who really cares?

If you do happen to become a big fan of the whole game you will be pleased to know that later in the year, Domark are planning to release some data disks containing leagues from countries such as Italy, Spain and Germany – so all those dreams of Kuntz and Ravioli will come true after all.



Here's the next lot of England fixtures. You won't have much to do between them so make yourself a cuppa



This is Les Ferdinand, he's a great player. Ooh, yes. At least Stockport didn't turn him down before he went to QPR. Damn!

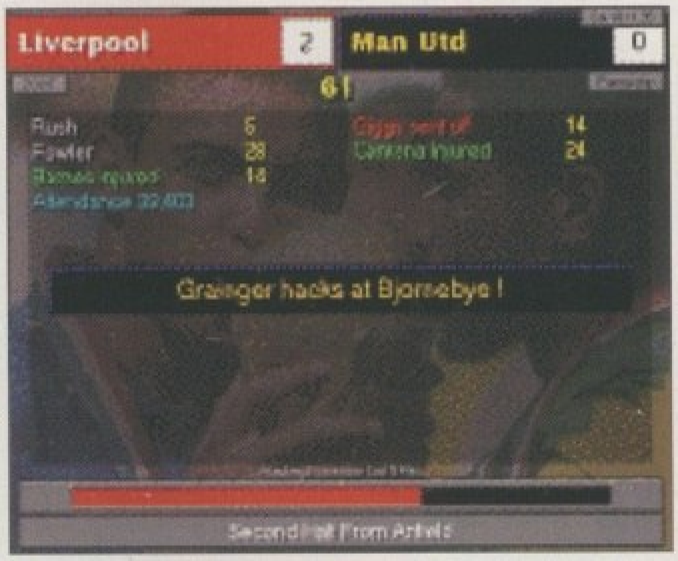


It's half time, drink some water, suck on some oranges. Of course I can remember the score... It's 2-2... or was it 2-1

job to appear – and considering it's popularity and discussion during the last months you may decide to stick with your club – but surely a hole would be left on your achievement sheet. The national job is supposed to be what football's all about – only the press seem to muck it up somewhat. This is easily the best aspect about Championship Manager 2 – there is no press... you'll be pushed hard enough to make your own fans happy never mind anyone else.

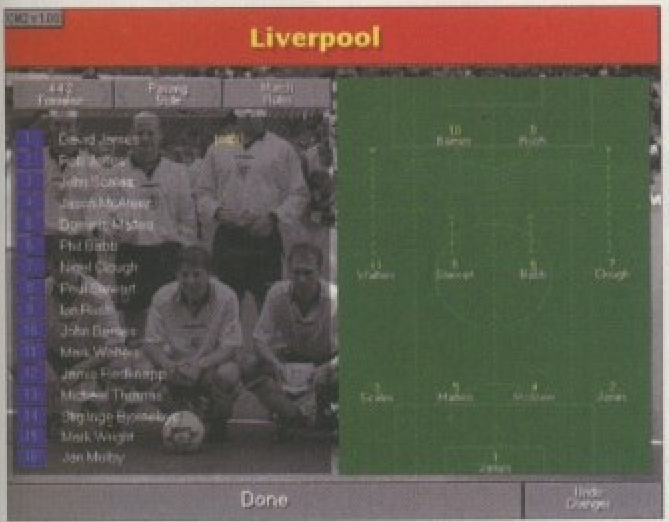
Championship Manager will also follow the actual season calendar so the Coca Cola Cup first round matches may be played before the Premier League starts, there will be weeks free in the top for international games, and the cups such as European and Cup Winners will all be played mid-week. If you're unlucky enough to have matches postponed you can expect a hefty build up of games during your last two months. It's that realistic.

Hopefully, all the bugs will be wiped clean from the sequel, especially for loan players. I'm not sure whether this has happened to anyone else but when I loaned a player out he stayed at



This is a PC screenshot. Can you tell the difference. What do you mean "yes." Try squinting...

the club until the end of the season, and when the new one began he decided to disappear completely from the entire game. It's probably just me though. He was probably there all the time.



Liverpool – Phil Babb, Steve McManananananaman, Jamie Redknapp. They couldn't be accused of having odd names, no?

Insight

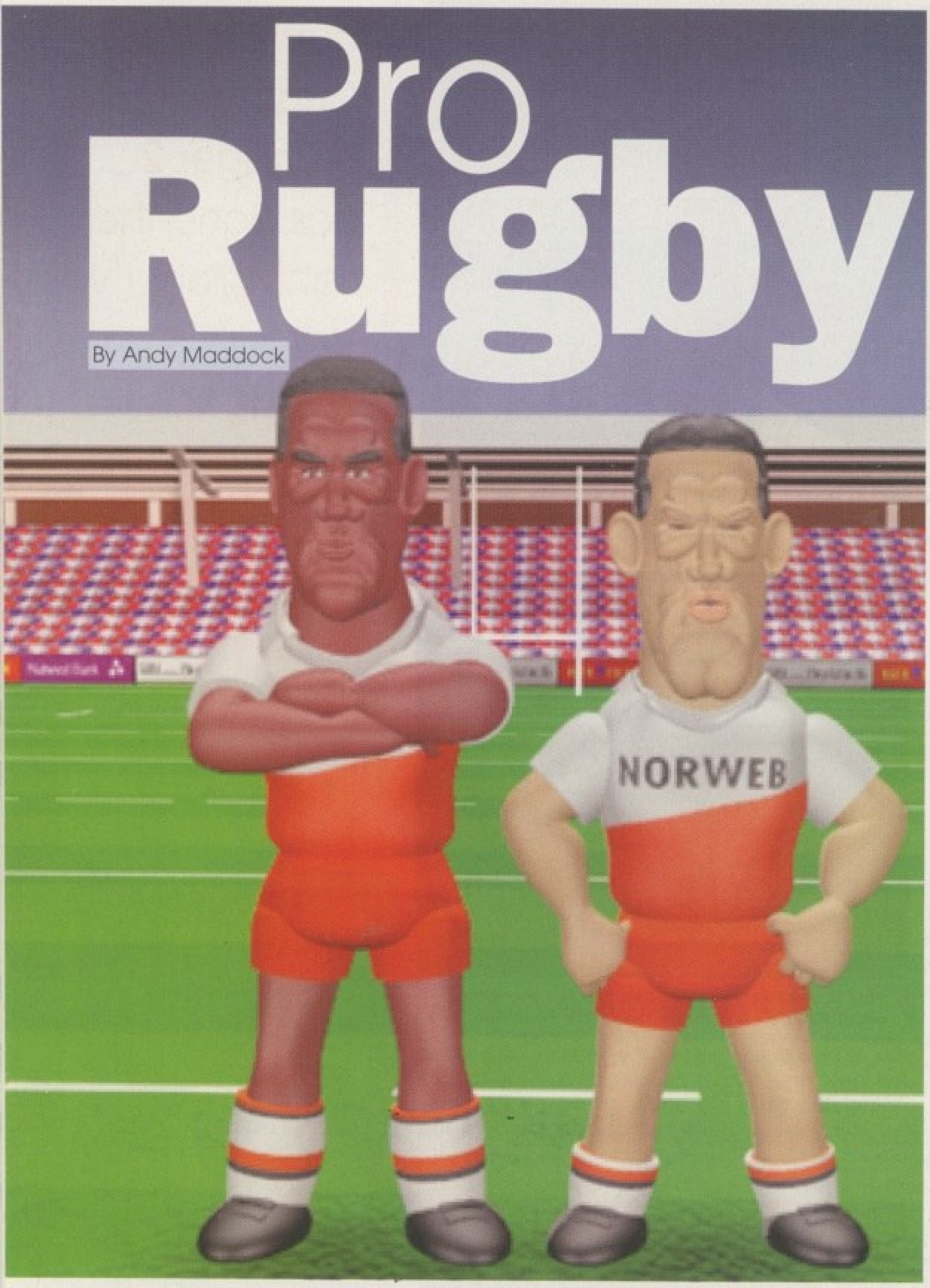
If you can remember the amount of detail that Championship Manager contained, there will be a lot more. There are more stats to look at so even the biggest statistic buffs will think they're in heaven. The match sequences have also been drastically changed, adopting a very exciting look which certainly will not contain any bland system fonts which make the game look totally unprofessional.

Anyone who's already ordered a copy of Championship Manager 2 has done the right thing. I've got a feeling this will be one of the best-selling Amiga games ever. You can check out a full review hopefully next month – if it hasn't been put back another month!

‘ **Anyone** who's already ordered a copy of **Championship Manager 2** has done the right thing. I've got a feeling this will be one of the **best-selling** Amiga games ever ’

Pro Rugby

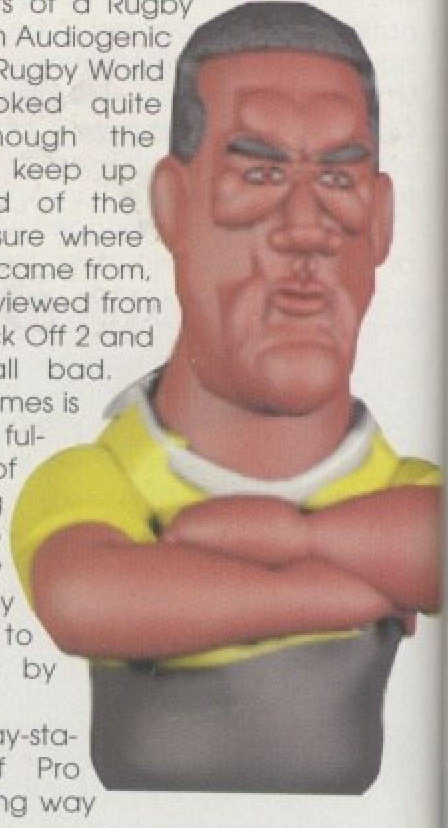
By Andy Maddock



Alternative Software have been noted for their past releases such as Thomas the Tank Engine's Pinball, Sooty and Sweep paint packages and, more recently, Tracksuit Manager 2 which is reviewed in this issue. Who would have thought a Yorkshire software house with such a crazy track record could release an arcade Rugby game?

Rugby has appeared in the media limelight for quite some time now, with the main area of discussion being the Super League. Some of the great Rugby sides from all over the world have already begun battling it out for the championship. The likes of Wigan, Castleford, Warrington and St Helens are pitted against the likes of Paris and er, that's it. Well, at the moment.

The main attraction so far is the fact it will be the first Rugby League game on the Amiga. According to the company boss of Alternative Software, Roger Hulley, he couldn't believe there hadn't been a Rugby League game already: "There have been plenty of Rugby Union games, but that's not the same thing." The development team involved are called Charybdis who hail from Nottingham and have only been in the business for a short time.



Previous efforts of a Rugby game come from Audiogenic with their game Rugby World Cup which looked quite impressive, although the sprites failed to keep up with the speed of the action. I'm not sure where the other game came from, although it was viewed from overhead like Kick Off 2 and it wasn't at all bad. However, two games is never enough to fulfil the dreams of Rugby loving Amiga owners, so can Pro Rugby be the first Rugby League game to take the world by storm?

The PC and Play-station version of Pro Rugby is still a long way

Running commentary

One more feature rumoured to appear in the Amiga version is the commentary. Yes, I said commentary. Never before have we heard a real life commentator on the Amiga waffle on about the action. We all know about the Amiga's sound capabilities yet they never seem to be used in games – just music and graphic demos. If you've watched a league match on Sky Sports you will have heard two of the best commentators who have ever lived. They may not have the true professionalism of greats like Hugh Johns or Kenneth Wolstenhome, but for entertainment they just cannot be beaten. These men are Eddie Hemmings and Michael 'Stevo' Stevenson.

Eddie is the main commentator on the action while Stevo will chip in with his quick wit, making a superb comedy duo who cannot fail to please. The commentators are certainly the icing on the cake of what should be an absolutely brilliant game.



off completion, never mind the Amiga version, so we've decided to label it as work in progress rather than a preview.

Basically, the game will be viewed from a halfway line perspective (like a view from a Main Stand) which is usually the best option for the Amiga after seeing a number of football games adopting various angles. It's also the simplest and you can see all your players on the pitch so you can plan attacks and position your line of defence.



Also, as the game is meant to be as realistic as possible the pitch will become torn up as you begin diving about the place, you will be able to control and see the spin on the ball when you're passing it down the line, and a whole lot more. Obviously, details for this on the Amiga are quite sketchy but you can bet that Alternative Software will squeeze as much as possible in for Amiga fans to enjoy.

The graphics (although on the PC) are pretty outstanding and feature massive sprites for the players who will also have their own characters, personality and looks. But again these graphics will certainly excel on the PC, so we'll just have to wait and see how clever the programmers are in maintaining these original features. It will be difficult, but worth the wait.

The chosen one

So why Rugby League? Well, obviously it is the best idea as it seems to have injected new life into itself from the Super League – especially with armchair supporters. However, the main factor is that Roger Hulley is a big Castleford fan and for him to see his own team in his own game isn't bad.

Rugby League is also pretty strict in the way it's played. For example, there can only be five tackles then play must change hands. You can imagine that this is slightly easier to work into a computer program rather than the Rugby Union approach where you don't stop and start as much, and there aren't as many rules.

> ‘ The graphics (although on the PC) are outstanding and feature massive sprites for the players who will also have their own characters, personality and looks ’



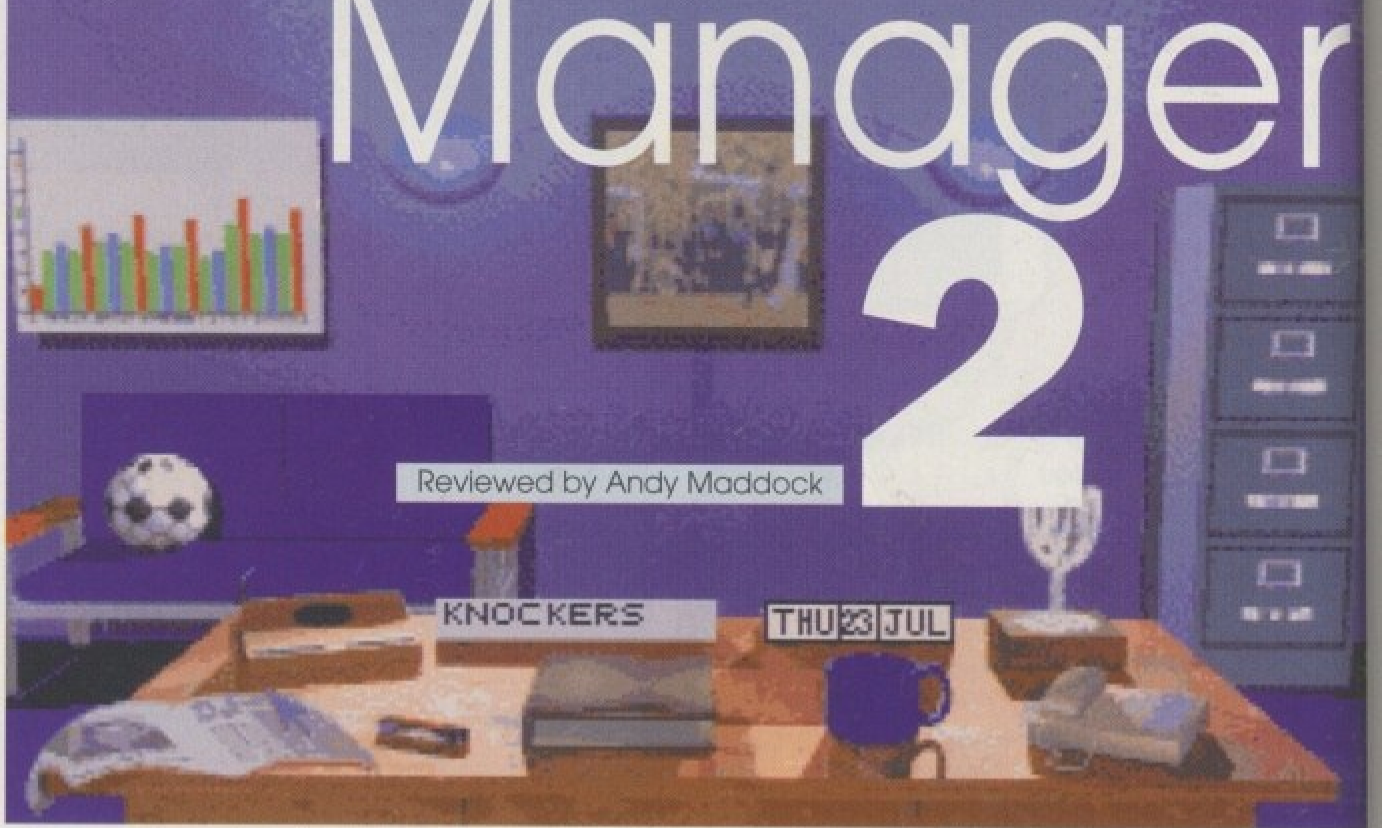
You can see the sprites from the PC version look excellent – chunky too. They will each have their own individual look and personality just like real-life. I mentioned before that Pro Rugby is a long way of completion and it's difficult to say which features from the PC version will make it into the final Amiga version.



Tracksuit Manager 2

Reviewed by Andy Maddock

GRAPHICS	71%
SOUND	61%
GAMEPLAY	87%
OVERALL	87%



Who am I? I'm Scottish. I'm pretty miserable. I think I know what I'm doing and I bought Andy Cole. Tee hee.

PUBLISHER	Alternative Software
DEVELOPER	In-house
PRICE	£24.95
DISKS	2
HD INSTALL	No
SUPPORTS	All Amigas

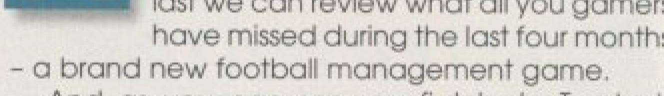
A new football game? What's happening? Shouldn't there be a Doom clone here instead? Well, the answer is no. At last we can review what all you gamers have missed during the last four months – a brand new football management game.

And as you can see, on first looks Tracksuit Manager 2 could possibly pass for the sequel to the once reigning football management sim, Championship Manager 2. The first Tracksuit Manager was reputed to be either the first or one of the first football management games ever, and to be honest it showed. It might've been quite a game when it came out but try playing it now and you'll be on the edge of throwing your computer out of the window.

So Tracksuit Manager 2 is here and I know what you want to hear. Is it going to be as good as Championship Manager 2? Well, Let me tell you what it's all about.

Basically, if you've ever played Championship Manager you will know exactly what to expect. You can manage an English club from the Premier League to the 3rd division and there is no real objective or goal (Ho ho) to be achieved – all you need is success.

When you begin the game it will seem as if you are sitting down at your desk within the stadium – incidentally, no other football management game has used this idea to great effect apart from On The Ball. You have access to a telephone for transfers, a filing cabinet to keep the club



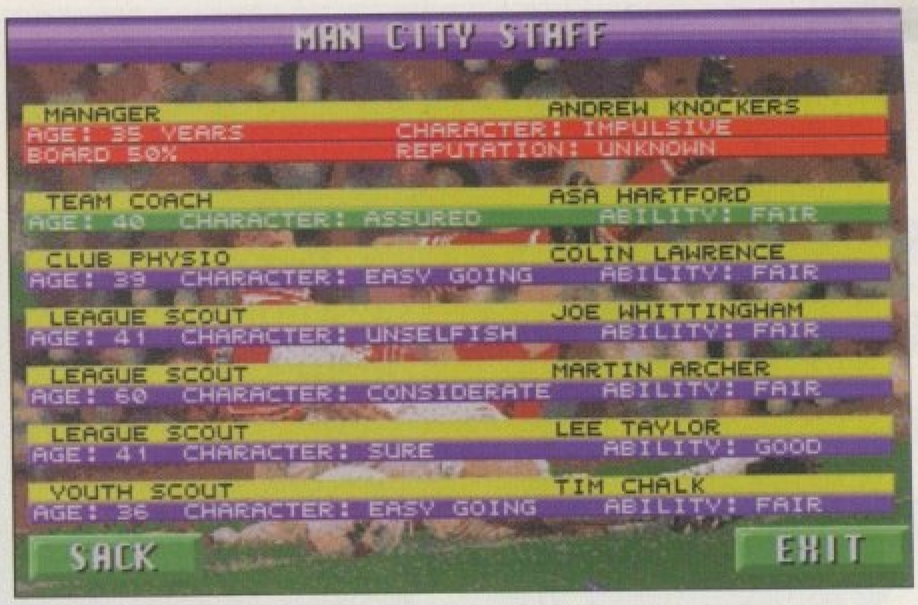
The whole game set-up takes 15 minutes. It's a good job that cuppas only take about five to make, so you can have three. Hoo-ray!

Match crisis

Now here comes the crunch. When you've managed to cycle through each day to get to the match day (which, incidentally, is a Sunday!), the tactics screen comes up allowing you to alter your individual team tactics, name your captain, push players up or drop them back. Everything is set-up, so you anxiously click on the 'exit' button and are lead to the match sequence screen. This is where Tracksuit Manager falls flat on its face. There are two badly digitised commentators gibbering to each other about the action which pauses for a number of seconds each time the ball goes out of play. There are two buttons on the right-hand side of the screen to speed up the



Here are the league tables. You can see that if everyone in a season drew 0-0, it would be quite bland



Here's the Man City staff list. Asa Hartford used to manage Stockport County you know. See, a useless fact for you...

records in, the newspaper to check the headlines, a calendar so you know what day it is, and what's this? A pack of Fizzy Chewits? Yes, Fizzy Chewits I said. Tracksuit Manager 2 is sponsored by those tangy flavoured delights... right where's my £50?

So everything a manager could need apart from a £15 million striker is close at hand. Now all you've got to do is pick the team, negotiate bids, and do all management-like things to take your team to the top.

The actual interface is quite cheap looking. The colours are a mix of green and red and as you switch between screens you will get a pretty badly digitised picture of Steve McManaman and Rod Wallace. The interface is so friendly and perfect it's a shame it's presented in this way. The fonts are big and bold and you can always see what you're doing which helps a great deal.



Does anyone know why you can't turn the commentators off on Sky Sports anymore? Write in and tell us...

I suppose I would go as far as saying the actual menu system is better than Championship Manager. The team selection screen is easier because it informs you of the players that have either been injured or suspended by highlighting the missing number from your squad. Also, the finance is included in a lot more detail, as well as club records and histories.

> **" If you think you can put up with the awful match screens then there's enough detail here to satisfy you to make up for it "**



Manchester City will win the league next season. There's no stopping them now they've got Kinky



Here's the complete squad. Here are some players. Here are some numbers... Here's a bland caption

action, but it still pauses, and if you score a goal an annoying flashing display will come up and you have to press the button to kick off again. This, in my mind, defeats the object of speeding the game up.

The whole presentation of the match looks like a PD program written in Amos. When you return to your desk to view league tables it looks so much better – it's like a different game. Although the game lasts for seasons and seasons, I couldn't get through the first month without becoming annoyed and frustrated. Even the blandness of the original Championship Manager's match sequence was more enjoyable and exciting.



Here are all the cups. You can find them under the menu 'Cups Man Utd will never win again'

Final word

The only thing stopping Tracksuit Manager from being a Premiership contender is the truly awful match screens. If you think you can put up with them there's enough detail here to satisfy you to make up for it, although with Championship Manager 2 minutes away, maybe you should think twice.

GRAPHICS 89%

SOUND 87%

GAMEPLAY 90%

OVERALL 90%



The graphics use a graffiti style which works well



Lanesaver forces the ball back into play when it would otherwise disappear down the lane

Slamtilt

Reviewed by Tina Hackett

PUBLISHER
21st Century

DEVELOPER
Liquid Dezign

PRICE
£29.99

DISKS
5

HD INSTALL
Yes

SUPPORTS
A1200/A4000

As any Amiga gamesplayer will know, publishers 21st Century have always been prolific in bringing out high quality titles for the platform. Their games usually fall into the category of pinballers and each time a new one comes out it seems a step up from the last one they released – despite the fact you thought that one couldn't get any better. Firstly there was Pinball Dreams, then Fantasies then Illusions. All getting better each time.

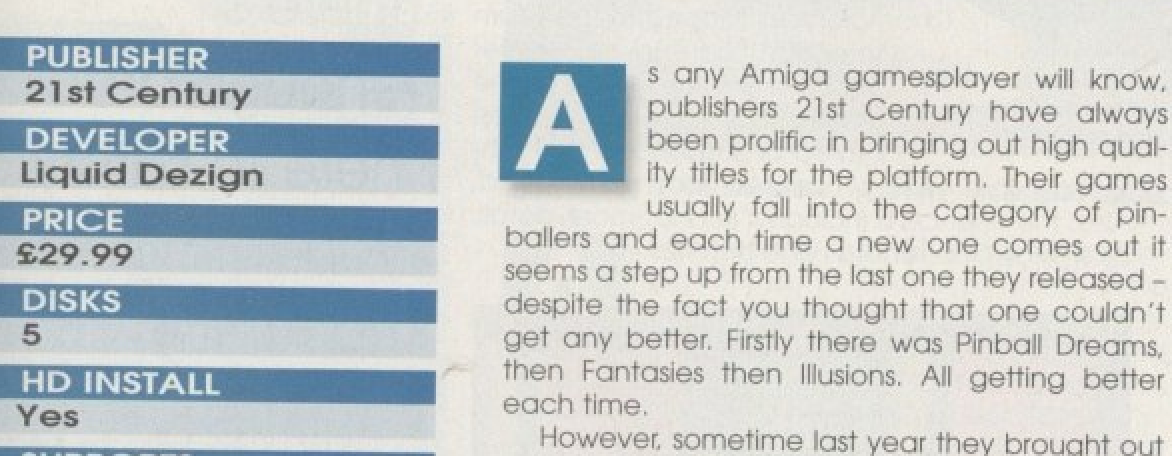
However, sometime last year they brought out a title which unfortunately broke this rule. And nobody was impressed – except perhaps Amiga Technologies who made the questionable decision to include the game, Pinball Mania, in their MagicPack bundle. The problem with this title, though, was that the development team they'd chosen was different to the one who'd done the other games. This new team didn't quite have the flair that Digital Illusions had and although not a terrible title, it wasn't that wonderful either.

> ‘There has been no **compromise** on gameplay, graphics or sound and you immediately get the feeling of a **polished** product’

Mediocre most aptly described it. After that we'd pretty much given up hope. We thought 21st Century might, at this point, just give up on us all. Fortunately though, they must still have faith in the Amiga platform, and good on them too. Signing up the talents of a new Swedish team, Liquid Dezign, a new title was soon on the horizon. It happened quicker than you could say "It's a new pinball game from 21st Century" and no sooner had we time to do a preview then we were sent the final copy – no delays or anything – ready to review. "Too good to be true?" we thought. Well, no it's pretty impressive stuff.

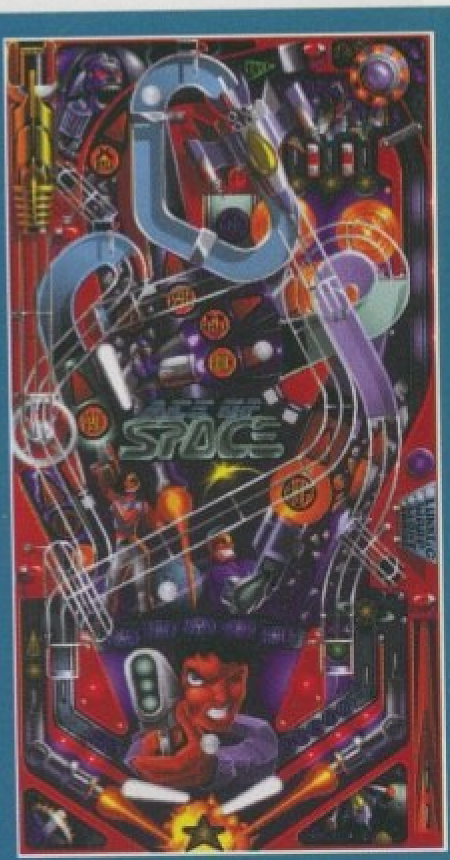
Despite a speedy release, there has been no compromise on gameplay, graphics or sound and you immediately get the feeling of a polished product – and one which will boost a jaded Amiga gamesplayers collection. You get four tables to try your hand at, and each is themed and has music, graphics and missions to match. First up is Mean Machines, a motor racing table,

Liquid Dezign, a new Swedish team, look certain to make their mark with this title

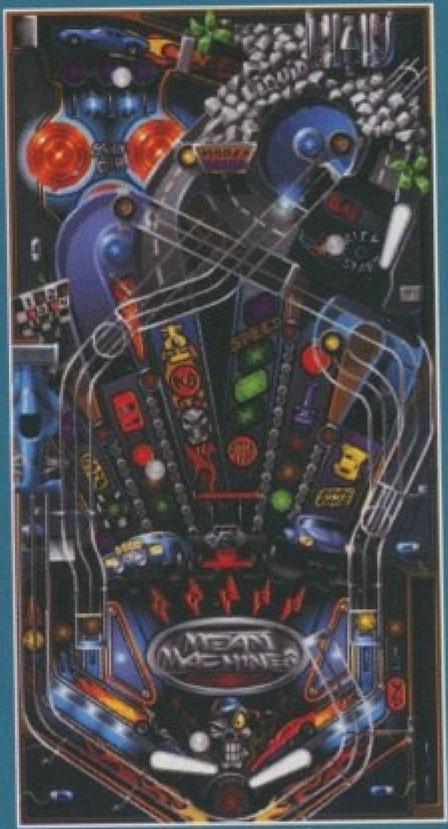




Night of Demons: This is the horror themed table and you will need to defend yourself against the evil Zombies. To kill a Zombie and earn an extra 5,000,000 points, shoot any ramp showing a flashing yellow lamp. If in Bat Butcher Mode you will have to shoot the flying bat from the sky with your shotgun.



Ace of Space: Survival in space is the name of the game. You will have to destroy the Asteroid Belt and kill the Aliens with your flamethrower in the 3-ball multi-ball mode. The Final Mode is The Big Blam where you can destroy the whole universe. When you've played through every mode then you can try your hand at this 4-ball multiball where you can shoot any ramp to explode a planet and collect a jackpot.



Mean Machines: hit the road as you pit your wits against Monster Car Mode where you can use your Monster car to crush the smaller cars, or Formula 1 Race Mode where you use the flipper keys to steer you car around the track shown on the scorepanel video.



Pirates: shoot the Mermaid Ball-Trap to get the Mermaid bonus. This starts at 1,000,000 points but can be raised through the Magnatable. This is a magnetic playfield where there are magnets placed under the red lamps – these can be controlled with the flippers. You will also have to control a mutiny and a raging storm, various multi-ball modes.



In Pirates you will need to defend yourself from sharks and can dive for sunken treasure



Tracks and ramps have been well designed for players of all skills

the next is Pirates, with, (surprise) pirates, piranhas and mutiny, Ace of Space has a futuristic theme where space ships, asteroids and aliens provide the setting, and lastly, Night of Demons is a table inhabited by a naked (bar a strategically placed serpent) vampiress. Being a pinballer there's not a great deal to explain about the gameplay – you simply use the keys to flip the flippers and send the ball shooting around the table. There are plenty of missions to get to grips with and each table has a variety of modes to keep things differ- ➤

Video modes

The Video Modes are played in the scorepanel and add some variety to the game. Here are some that are available:

No Brain No Pain – you must try and keep track of where the brain is going while the skulls are rotated. When they stop you have to pick the skull that the brain is in.

Death Planet – fly your ship through the inner tunnels of the planet to get to the centre. It's harder than it sounds because you have to guide your ship through the narrow tunnels with the flipper keys.

Knife Throwing – throw knives at your enemies and try to avoid being taken out by cannon fire. The flipper keys allow you to move left and right whilst the return key will throw a knife.

Formula 1 Race – there are six windy tracks that you have to steer your car around with the flipper keys. Don't bump your car too much though as you will lose energy.



Ace of Space offers a video mode which has you pitting your skills against death-defying tunnels in your space ship



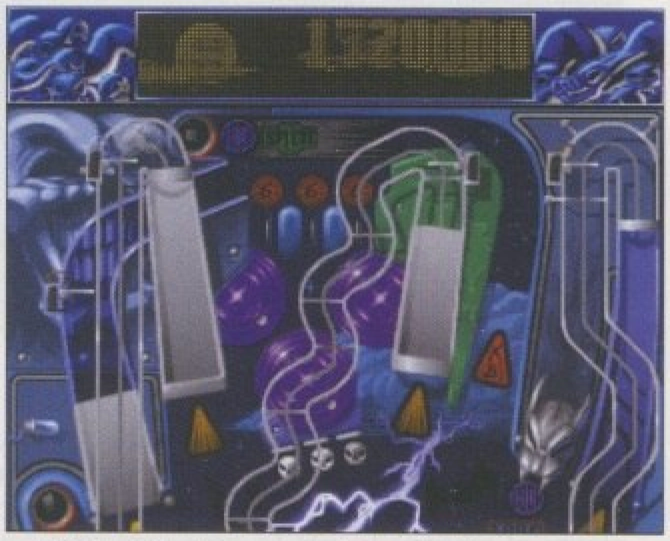
The scorepanel at the top provides animations to add atmosphere such as giving the impression you are flying through the galaxy

> ‘Graphically, the tables are well drawn and detailed enough to look good but not so much as to interfere with the gameplay’

ent. What makes this rather different from the rest, though, is the LED score panel at the top of the screen. Rather than just showing simply the score, you also get various video modes which provide different arcade challenges. On Mean Machines, for example, the video mode shows a car which you'll have to guide around the track with the flipper keys. These extra challenges work exceptionally well (although they definitely don't have enough gameplay to stand up in their own right) and keep things interesting.

As far as the main gameplay goes, the movement of both the ball and the flippers feels realistic and the tables vary from being quite simple with only a few tracks to windy, complex efforts where you'll need to keep your eyes peeled. The sound effects also work well in enhancing the realism. Graphically, the tables are well drawn and detailed enough to look good but not so much as to interfere with the gameplay. Night of Demons, for example, may suit a beginner better as the table is quite plain with only a few ramps and tracks. These different levels of difficulty, whether intentional or not, work well and make the game ideal for any pinball player – whether novice or expert.

There are some other nice little extras such as a Lanesaver Feature which is a metal fence in the sidelane which forces the ball back into play instead of allowing it to be lost down the sidelane. Another is the Magnatable which is a magnetic playfield where you control the magnets with the flipper keys to get the ball locked between them which results in various awards.



Night of the Demons looks quite simple in layout but the various missions keep it taxing



Final word

Slamtilt is without a doubt an excellent title. On the one level this is an accurate simulation of the real thing (as much as it can be in 2D anyway) and on another, the arcade element makes for something different to keep it varied. Graphics are colourful and detailed with well designed tracks and ramps to keep each table individual. The cartoon style in the scorepanel adds novelty too.

The sound tracks work well enough (although some are rather clichéd such as the rock tune), and they accompany each table appropriately. Whether it is up to the same standards as Digital Illusions' last venture, Pinball Illusions, is really going to be down to individual preference. It's up to the same quality technically and it does look as good, so whether you buy it or not depends on whether you're bored of Illusions. This is a great game and if Liquid Dezign keep this up then it certainly looks like this new team have a bright future ahead of them. Let's hope their future plans include the Amiga.



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AMIGA COMPUTING Snippets

AMIGA GUIDE

This month Frank Nord presents three handy hints and tips for Workbench users

Bits and bobs

Viruses are scary things made scarier by the media now that they seem to have latched onto the silicon version of AIDS as newsworthy copy. But as an Amiga owner you can rest easy about most of the viruses you read about in the paper – they'll only affect PC owners. There are a lot of myths about viruses, probably spread by their creators, that lead to people being unnecessarily worried about their software collection. You don't have to worry about catching a virus from a disk formatted under anything other than AmigaDOS, so don't worry about putting PC disks into your drive. You don't have to worry about a virus contaminating your Amiga's clock or Kickstart ROM, it won't happen, you don't even need to worry about a virus invading your machine via modem, although if you download software and the archive has a virus, you will have a problem.

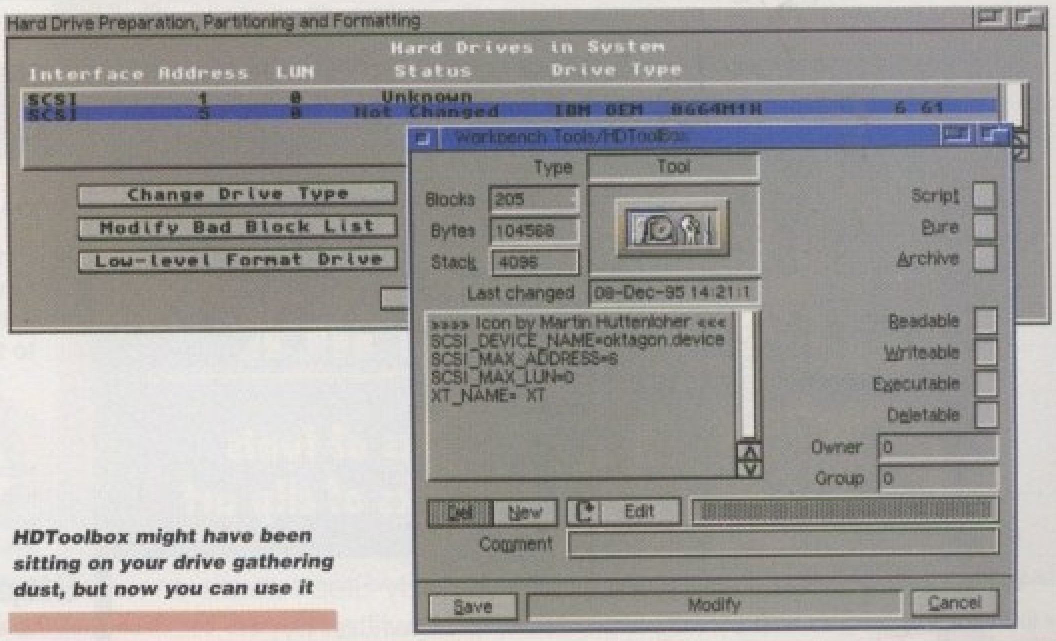
There are certain measures you can take to ensure that your exposure to viruses is minimal. The first is to make sure you know the source of each and every floppy disk you use on your machine, and, if you are solely a games player, make sure you turn off your machine for about a minute between different games. You should also always keep disks write-protected whenever possible. There's not much point write protecting your hard drive, of course, but then you'll probably be onto the next stage of protection anyway.

The next stage is to make sure you have some sort of virus checker running. Although new viruses for the Amiga seem to have tailed off somewhat (is this real proof that a machine is in decline? No-one wants to even write viruses for it?), there are still plenty of PD programs dedicated to eradicating the ones that do exist. AC's firm favourite is still Virus Checker, even thought the newest versions of it seem a little bloated in size, but it doesn't really matter which one you choose, they all do the job admirably.

Dragon who?

Not Dragon who, drag 'n drop. This feature of the Amiga's OS is much underused by Amiga owners, even though it has been touted as the next best thing by Microsoft and Apple in the latest versions of their operating systems. The Amiga has had drag 'n drop capabilities for a long time now and quite a lot of programmers have included things called AppWindows, AppMenus and AppIcons in their programs. But what are they?

Well, Appwindows are windows in a program that you can drag icons to load them or perform operations on them. Examples of this would include ToolsDaemon 2.1 and SwazInfo. Try dragging icons into the windows of either of these two programs or many others and see what happens. AppMenus put a new menu item on your tools menu that allows you to access the program that created it easily, especially if you have a lot of screens open, and AppIcons are also there to make access to programs that use another screen easier. Try dragging a picture file onto DPaint's AppIcon and see what happens. These aren't the only programs to have these features, so check all the stuff on your hard drive now for App-compatibility!



HDToolbox might have been sitting on your drive gathering dust, but now you can use it

HDToolbox

Have you got a third-party SCSI/IDE controller? Do you have Commodore's HDToolbox program sitting on your machine doing nothing, because your hard drive software came with a configuration tool? Well, if your controller supports the RDB standard, as most do these days, then you can use HDToolbox to prep and partition your hard drive and have the added security of the knowledge that you can follow the instructions laid down by Commodore, and taken up by Amiga Technologies, for the formatting of hard disk drives.

All you need do to get the program working is examine HDToolbox's tooltypes. You will see a tooltype called 'SCSI_DEVICE_NAME'. You can change this to match the SCSI device used by your controller. For example, the SCSI device for an Oktagon is called 'oktagon.device', while that for a GVP hard drive controller is known as 'gvpscsi.device'. Activate the tooltype by removing the brackets around it and add your device name, making sure you use the same case. Now, when you use HDToolbox, it will look for the drive (or drives) on that card.

Further, if you have a CD-ROM drive that causes you problems when you boot (the Amiga looks for something to boot from the CD and it takes ages), then you can do this. Make your CD-ROM drive's SCSI ID 6, if at all possible – some A3000 owners won't be able to take advantage of this tip – and load HDToolbox to check you've done it right. Okay, now exit HDToolbox and open its information window. Check the tooltype that says 'SCSI_MAX_ADDRESS' and remove any brackets, if necessary. Now change the unit number it says as the max address to 5. This will stop HDToolbox from seeing you CD-ROM drive.

It won't matter to the CD-ROM or your SCSI controller, they'll still be able to see it, but if you go into HDToolbox now you'll see that the drive with the highest unit number now, has a 'changed' mark on it. Save the changes to the drive (all that's happened is that the flag that marks the last unit in the SCSI chain has been updated) and now when you reboot you should have no trouble with that pesky CD-ROM drive.





EM
ISSUE 8
Power Amigas
HOME PAGES
STRUCTURED CLIP ART

Paul Overaa looks at the official Amiga include files and outlines the benefits they offer

Native process

To a large extent, coming to terms with 680x0 coding on the Amiga simply means coming to terms with the purpose and use of the routines present in the Amiga's system libraries. Exec, DOS, intuition, gadtools and so on all provide the programmer with massive collections of functions that simplify a great many coding tasks.

To ease the burden on programmers, Commodore, now Amiga Technologies, make available a variety of system files containing thousands of EQUate definitions, macros, system structure templates and so forth. The existence of these files helps in two ways: Firstly, it eliminates the need for programmers to create their own definitions (a job which is clearly both time consuming and error prone), and secondly, it promotes standardisation – all (or most) Amiga programmers soon get into the habit of using the ready made definitions provided in the includes.

Recognisable

There are, in fact, two versions of the system files. C programmers use a set of 'header files' containing, as expected, C-style system definitions and these files can be easily recognised, not only by their contents but by the fact they all have '.h' filename extensions. Assembler programmers have a similarly arranged set of system definitions written in ways usable to the 680x0 coder. These 'include' files are again always instantly recognisable since they have '.i' filename extensions.

The Amiga system files then provide the C and assembly language programmer with broadly parallel universes. A C programmer might, for instance, use definitions taken from the devices/serial.h header file. Someone coding a similar application using 680x0 assembler would use the devices/serial.i include file.

All commercial assembler packages, such as Devpac, come with a set of the assembly language versions of the include files. Public domain assemblers, such as Charlie Gibb's A68k, do not and, in this latter case, the files have to be purchased separately. There are, in fact, some significant advantages to buying the separate official files anyway because you not only get the includes themselves but the function autodocs – text files which explain how each and every Amiga library function is used.

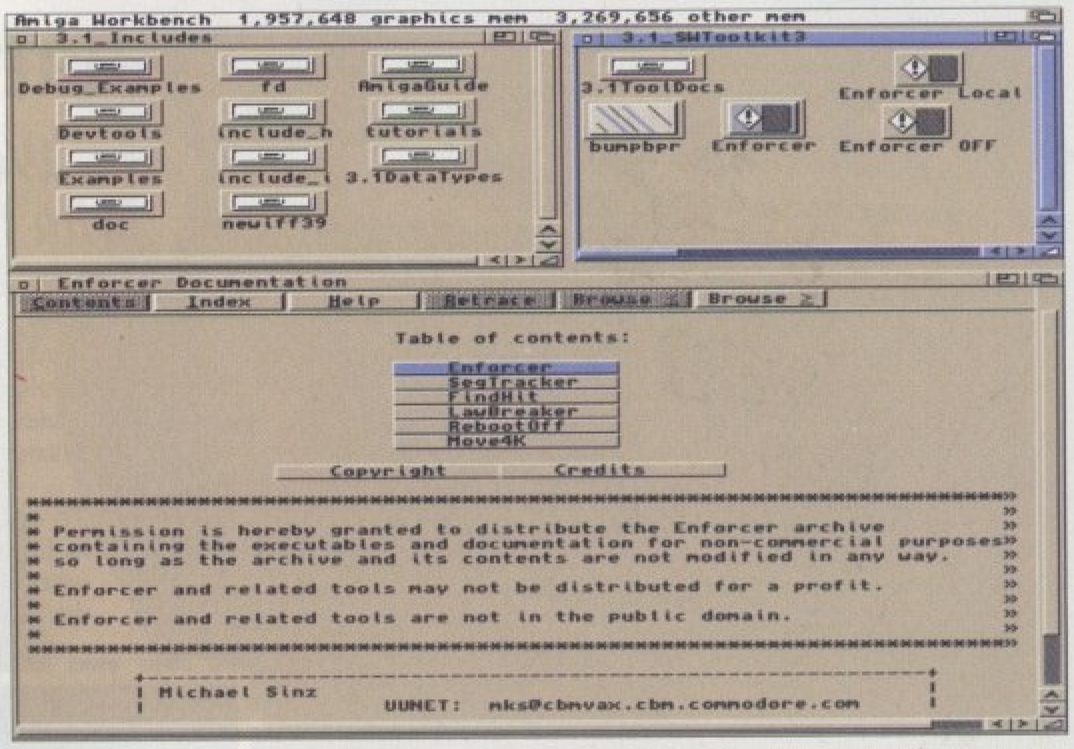
On top of this you also get notes about the latest O/S changes, examples and tutorials on all-important new facilities, plus a substantial toolkit of programs that have been found useful to Amiga developers. Enforcer, for example, is a utility that, whilst running as a background task, can catch and report illegal memory access errors in your programs. If you include debugging information in your code there's a utility called FindHit that will try to locate the source line that caused an Enforcer error. There is a SegTracker utility that keeps track of the SegLists created as programs are scatter loaded, tools called Mungwall and MungList that can watch for illegal FreeMem()calls and list the owners of memory blocks in use. Dozens of other programs are thrown in as well. You also get the Amiga FD (function description) files and utilities that can generate LVO (library vector offsets) values and so on.

A particularly important point to bear in mind as far as the documentation provided with these files is concerned is that it is totally up to date. There are no printed equivalents where this is so and in fact the only authoritative printed details of Amiga library function use, those in the Addison Wesley Includes & Autodocs ROM Kernel Reference Manual (RKM), are now very out of date. Even the latest (3rd) edition only covers Release 2 of the Amiga's operating system.

Compatibility issues

The latest system files available are for version 39.1 of the Amiga's operating system and these, like all previous releases, are 'backwards compatible'. This means, for example, that a Workbench 1.3-based programmer can use the up-to-date system files providing they stick to using only those library routines which were, in fact, available with the 1.3 operating system release.

Another point worth mentioning is that programmers who already have an earlier set of include files only really need to update their files if they now have a more up-to-date, or upgraded, Amiga. Many programmers, for example, originally purchased the (now dated) Workbench 1.3 header/include file set but have quite sensibly continued to use them simply because they are still using 1.3-based machines!



A host of programmer utilities are provided with the official includes

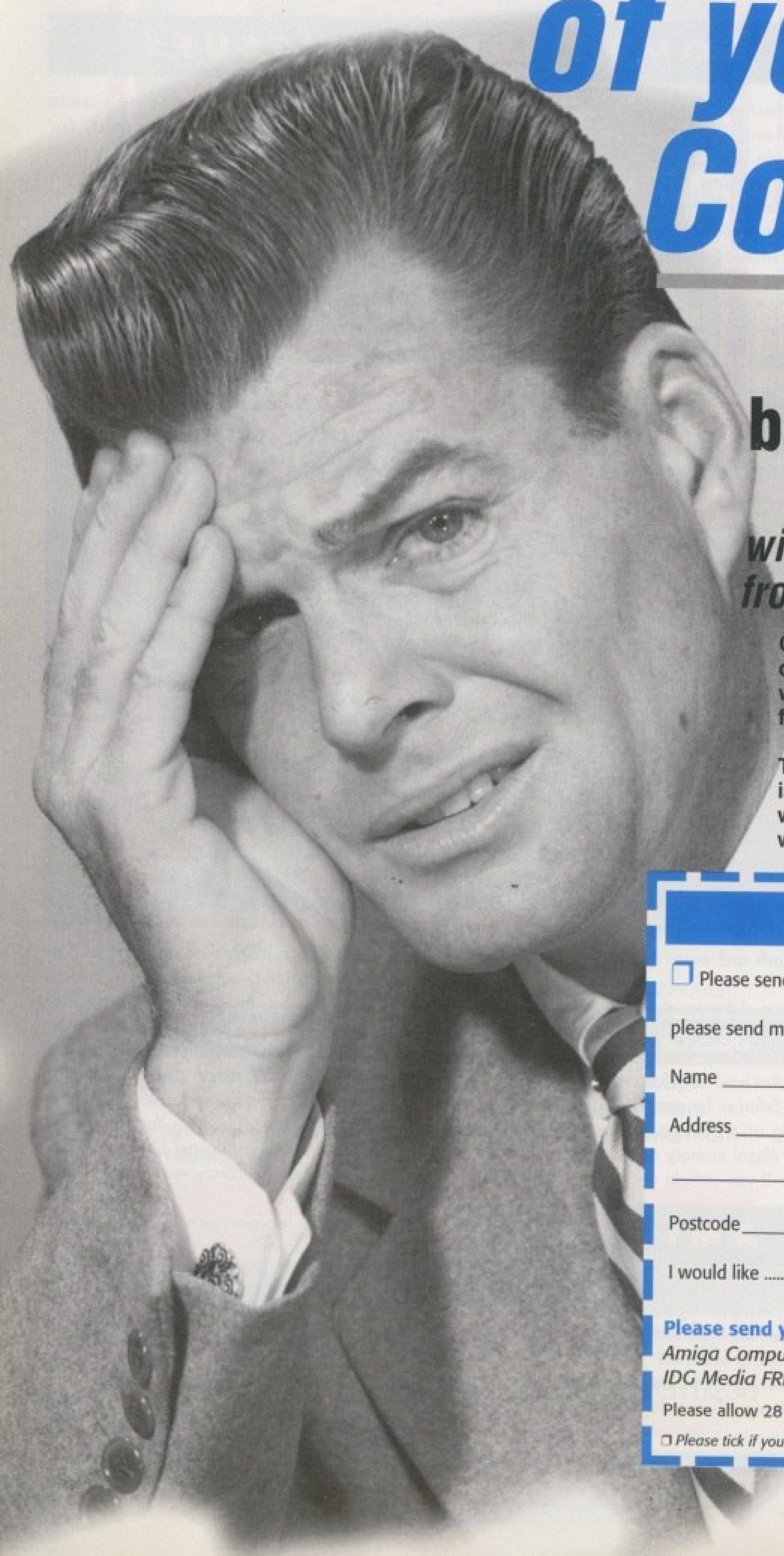
Serious about the Amiga?

Then you are going to need the official includes (or to give them their proper name the Native Developer Update Disks). No matter what assembler you are using, you are, at the very least, going to need the extra documentation provided. Without this documentation you simply won't know what new library facilities are on offer, nor how those new functions or facilities present should be used.

The Native Developer Update disks are then, or at least should be, an essential part of every Amiga coder's programming arsenal!

The Amiga Native Developer Update Files are available from Amiga Technologies (01279 680617) for £25

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This month Paul Overaa offers a beginner's eye view of how ARexx performs its magic

arexx

Get the message

A while ago someone wrote to me asking how ARexx allows programs to communicate with each other. You know, how ARexx makes sure that the right messages end up being sent to the right programs and so on. Since this is a topic which might be of interest to quite a few ARexx users, I thought I'd devote this month's instalment to explaining the general principles behind the ARexx messaging system.

The first point worth making may come as a bit of a shock – you see ARexx doesn't actually do that much of the communications work itself. Instead it makes use of the general message passing facilities that Exec provides, and it is here that the story really starts.

Exec is the Amiga's multi-tasking executive. In other words it is the part of the Amiga's operating system which controls sharing the Amiga's processor time between all the programs that are running in. Exec also performs a host of other operating system 'housekeeping' jobs and many of its facilities are based on generalised routines present in the Exec library.

One of Exec's support arrangements is a message system based on the use of a system structure known as a message port and any program which needs to communicate with another has therefore, as a first step, to set up one of these message ports. To transmit a message a program will allocate a block of memory, fill it with the data which forms the message, and then send it to the message port belonging to the destination program.

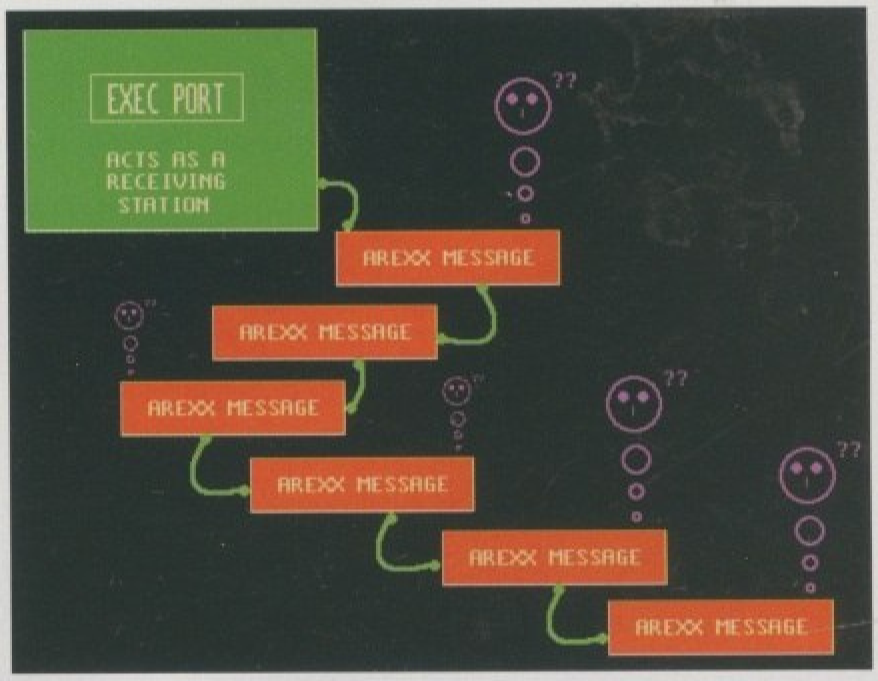
Once a message has been collected, i.e. unlinked from the receiving program's message port and used, it gets 'replied' to. This is a job which involves the program which received the message linking that same message into the message port of the program that originally sent the message. The only difference on this return journey is that the message will be given a 'finished with' marker – this tells the sender that the message has been dealt with and, therefore, that the block of memory being used for the message is free for re-use.

But nothing moves

Everyone talks in terms of these messages being sent and received because that, in a logical sense, is what's happening. Information is being passed from one task to another. In actual fact, however, nothing really gets 'sent', copied, or moved at all – the data that forms the message stays exactly where it is in memory. What happens is that the block of memory representing the 'message' has various address fields present which get adjusted so that the message gets 'logically attached' to the message port it is destined for.

The good thing about this arrangement is that there is never any need to copy the message information. Programs that receive a message read the contents of the very same block of memory that the program sending the message allocated, and this makes the arrangement extremely fast.

Another important point about Exec-style messages is that the Exec arrangements only specify the layout of the initial part of the message (list pointer areas and so on). Exec ignores the rest of the message contents so programs are free to add on to the basic Exec message structure any data they want.



All ARexx messages get logically linked into lists attached to Exec-style message ports

Now for the ARexx connection

ARexx ports are just ordinary Exec message ports. Nothing more, nothing less. They are referred to as 'ARexx ports' simply because they are being used to collect ARexx-oriented messages. Similarly, ARexx messages, as you have now probably guessed, are just ordinary Exec-style messages, with the only distinctive feature being that they have ARexx-specific information tagged on.

ARexx's real job, as far as its communications facilities are concerned then, is primarily to act as a sort of control centre. Programs send their messages to ARexx using Exec functions, and ARexx sends them on to the required destination, again using Exec functions. How does ARexx know where the messages should be going? Well, as far as the scripts that you write are concerned, you tell it by having your script set the current host using the ADDRESS command.

ARexx checks for and, all being well, locates these ports by looking at a 'public ports' list which Exec maintains. Because of this any port that is used for ARexx communications has to be made visible to the system by having its name added to this list (this is something which is taken care of automatically by any program which contains an ARexx interface). Luckily, all this complexity is transparent to the ARexx user because almost all the communications magic gets handled automatically. As far as ARexx ports are concerned, there are only two things ARexx users need to remember. Firstly, a message port must be recognisable to ARexx at the time you try to communicate with it. In other words, the program you wish to 'talk to' must be up and running before you try talk to it via ARexx.

Secondly, you need to be aware of the fact that the functions used to search the Exec public ports list are case sensitive. This, by the way, is the reason why when you get the case of a port name wrong in an ARexx script, the port never gets found and ARexx issues an error message!

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Space 1889 Arabian Knights Sensible Golf
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Spellbreaker Willy Beamish Codename:
Loved Me Dalek Attack Vaxine Under
Corpse Heart of C7 Colors Ishar 2 Exodus
Jahangir Khan Squash Bandit Kings Mercenary
Willy Beamish Codename: Iceman Strider II
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Dave Cusick extols the virtues of Internet Relay Chat – the Net's best conversation kit

comms

Net benefits

When the mass media talk about the Internet what they mean is, of course, the World Wide Web. With its stylish front-end it certainly looks the part, and indeed the impression that many advertisers give is that the WWW is the be-all and end-all of the Net.

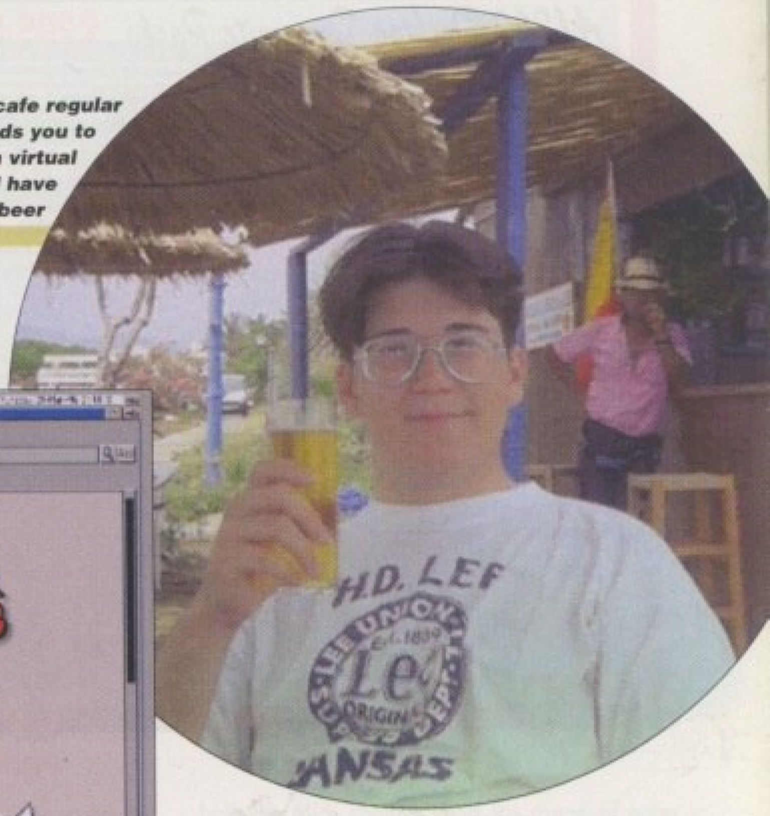
Admittedly, if appearances counted for everything, this might be the case. But there are plenty of other considerations – interactivity being a prime one. Surfing the Web is often a lonely pastime. Yes, you could participate in a heated discussion on a Web Chat site, but it's a slow affair. If you really want to have a conversation over the Net, by far the best option is to try IRC, or Internet Relay Chat.

On an IRC channel it is possible to exchange opinions and advice in a matter of seconds, not only with the people on the channel as a group, but also by engaging in private conversations with one other person at a time. You can also transfer files directly from one user to another, and many channels also support extra commands which are granted to certain users individually.

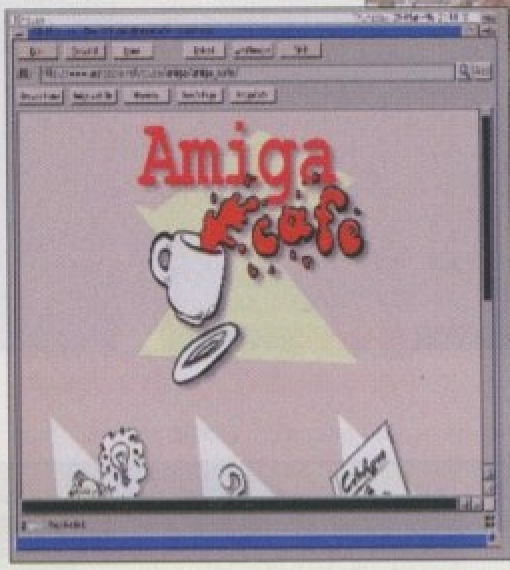
There are plenty of Amiga-specific chat channels, although my personal favourite is easily #Amigacafe. Even an IRC newbie is welcomed there, and the atmosphere is always friendly and often very entertaining. Things are nicely organised, with elected Ops keeping an eye on the proceedings, and Rangers who step in when there aren't many Ops around. However, the supervision is refreshingly low-key and friendly, and you need not fear being booted off the channel without good reason. After a couple of visits, no matter what time of the day or night you turn up, the chances are you'll get to know the regulars well. Some characters seem to be more or less permanently connected – these are the student folk (most notably from Canterbury) whose Amigas are actually connected to the Net from their rooms. Talk about convenience...

Indeed most IRC channels inevitably tend to be dominantly populated by university students with free Net access, although this is probably typical of the Net as a whole. It's not necessarily a bad thing anyway. Not only are students a generally friendly bunch, but their standard of English tends to be extremely high, even if it's not their first language!

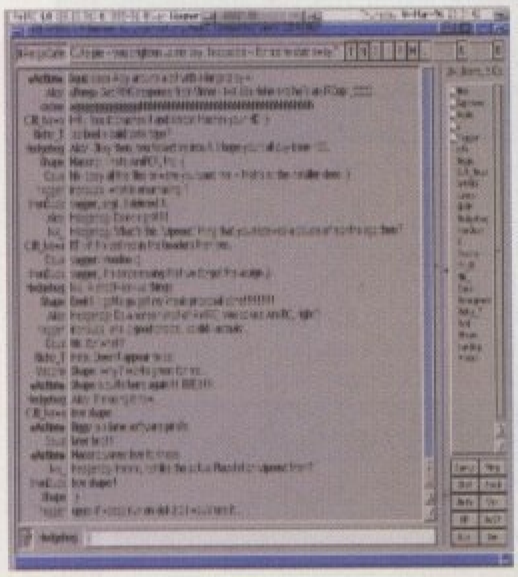
With the emergence in recent months of Vaporware's excellent AmIRC client, there really is no reason not to get involved in IRC. This marvellous application, which will of course be making a welcome appearance in Amiga Technologies' Surfer Pack, makes use of Stefan Stuntz's hugely popular MUI. This boasts a beautiful user interface that is really simple to operate. AmIRC is also heavily laden with incredibly useful options, all of which are explained in the accompanying documentation.



#Amigacafe regular Squiz bids you to pull up a virtual chair and have a beer



#Amigacafe has a Web presence too



AmIRC, the IRC client that everyone's falling in love with

All the standard IRC commands can be accessed at the click of a button, and after a little playing around with the settings it is possible to customise AmIRC to your precise requirements. Silly sound effects can even be added, and the ARexx support means that scripts can be executed easily. These could perform handy operations like launching a mailer program, as with Oliver Campion's YamIRC script. On the other hand, they could just be for amusement – such as the highly comical Chef script, which turns everything you say into the mock Swedish spoken by the Sesame Street chef. Ask nicely and somebody on an Amiga channel will happily send you the scripts using the DCC file transfer method.

Don't bother grappling with the likes of Grapevine, good though it is – toddle along to Aminet and download the unregistered version of AmIRC now and you could be chatting away within minutes. Don't forget to register it later though, and if you are not one of the lucky few who has a free connection, remember to keep an eye on the phone bill because chatting can be addictive. It's generally a good idea to do your Web surfing in the background at the same time, assuming you have sufficient memory to do so. I'd also get into the habit of running a phonebill meter (such as Onlineometer) on your IRC screen so you don't get carried away.

If you fancy finding out a little more about IRC before you leap in, there are a couple of useful Web pages you might like to visit:

IRCInformation:
http://www2.undernet.org:8080/~cs93jtl/IRC.html
#Amigacafe home page:
http://www.acropolis.net/clubs/amiga/amiga_cafe/

Raising IBrowse

At the time of writing, IBrowse pre-release demo 5 (version 0.81) has just arrived, with new demos seemingly appearing at monthly intervals. Whilst it is still not the most stable of applications, the program looks drop-dead gorgeous and is a joy to use. However, if you're not in the habit of reading documentation, make sure you at least take a look at the details of known bugs. IBrowse has been known to take down hard drives if it crashes whilst writing to the cache file, so I'd strongly advise using a RAM: cache if possible.

AMIGA COMPUTING

Advertisers' Index

Completely stationery

Need a way to make money? Stationery packs are an easy money spinner, as Frank Nord explains

publishing

Stationery packs are an everyday necessity for companies and individuals who write a lot of letters, and can be made easily and cheaply on the equipment you have at home. Let's start with personalised stationery and move onto the more serious business of creating corporate stationery.

The first thing to bear in mind if you are going to sell your services to individuals is the fact that they are notoriously fickle and indecisive. Don't offer up your entire font list for appraisal, you'll never get a decision. Just offer a menu of a few styles, say eight or ten, in a variety of themes – bold, fancy, futuristic, and so on. Most of your customers are going to be letter writers so you won't have too much call for really funky display faces – they just won't appeal to the sort of person who likes to write letters to people instead of e-mail. So go with a conservative mix with just a couple of the more outlandish fonts, for variety's sake.

Set up a print sample booklet with a fake name and address used as the letterheading, just so people can see exactly how their letterhead will look, and bear in mind the fact that plain copier bond isn't really good enough to charge money for letterheads. It definitely pays to look for nice paper to offer your customers. PaperDirect is a great source of paper that looks very professional (including vellum effect and patterned papers) and they offer papers at up to 135gsm, for that really weighty feel (ordinary copier bond is usually 80gsm). They also have heat transfer foil that you can use with a laser printer to really jazz up letterheads, at an additional cost of course.

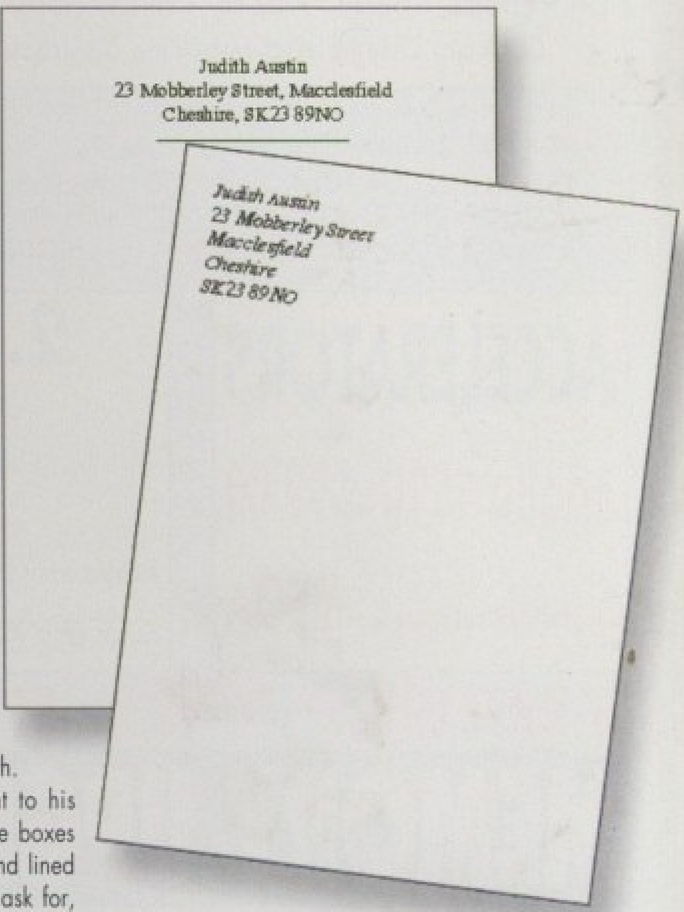
Final presentation will also help you sell your product and a nice bit of ribbon to tie the paper together is a good touch, as would be a box to keep the paper in. Now, before you all rush to your local printers to get A4 boxes, stop for a minute and let me explain the really good bit to you. If you are going to make up a box of 48 sheets of writing paper, you will only use 12 sheets of A4 and only actually print on, say, four of those sheets. Why? Because nobody writes letters on A4, and Basildon Bond certainly isn't available at that size. No, people write on A5 paper, a quarter the size of A4, saving you heaps of cash for paper and your printer's toner cartridge or ink refills.

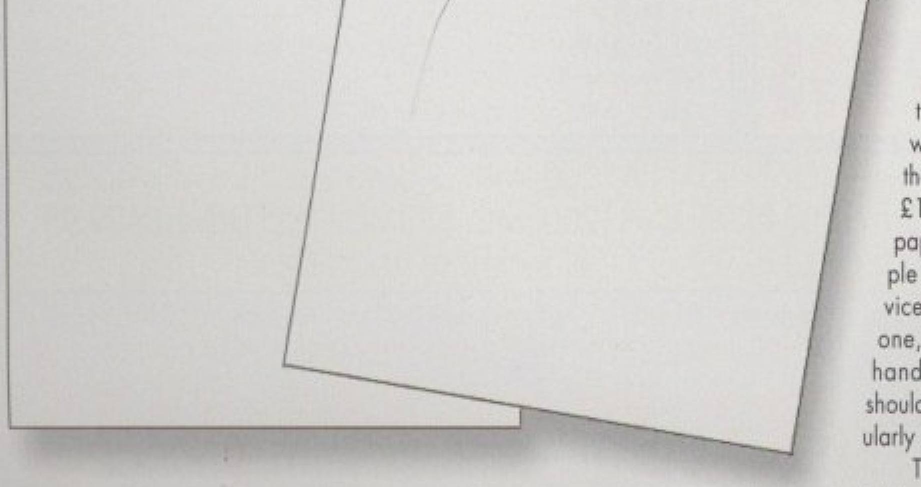
So the answer to your box size question is to get a box that is capable of holding 48 sheets of A5 paper, envelopes and the ribbon to tie them with. One individual I know of actually went to his local printer and got a set of 50 of these boxes made up with a nice marbled finished and lined interior for about £30. Not too much to ask for, and it will have a great impression when given to the punter.

Although this enterprise can be seen as a license to print money, you'll need to know what to charge people. I have seen personalised stationery packs advertised for as much as £30, but I think these were probably printed on gold leaf or something to warrant this high a price tag. I think a price set somewhere between £10 and £20 is reasonable and makes a good gift idea for relatives. If you were to charge £10 for the pack of 48 sheets, you could probably expect to make somewhere between £6 and £8 in profit, provided you aren't required to post the pack anywhere. This would break down to about 50p for the box and say 20p for the ribbon, £1 for the envelopes and 50p for the paper, plus costs for printing the sample booklet and advertising. Your service won't appeal to absolutely everyone, fewer and fewer people seem to hand write letters these days, but you should be able to make a tidy sum, particularly at Christmas time.

Two last points: the first is to keep a database of your customers' names and addresses (the dtp file for their letterhead shouldn't be too big to store either), just for future use. You may be able to sell them other services like the company stationery packs we will discuss next month, or invitations, etc.

The second point is to include a reorder sheet in with every stationery pack so that the receiver of your customer's generosity will be able to get more stationery without having to go through a middleman.





Four very simple designs knocked up in two minutes flat – I'm sure you can do better

Printer power

A note now on your printer's capabilities. Be warned that people aren't going to be willing to fork out a handful of cash for printing work that has banding, or that has soaked the paper and made it wrinkly. Spend some time making sure your printer is giving the absolute best performance it can and then judge whether or not you think people will be prepared to pay for its output. You may as well give up now if you only have a nine pin dot matrix, but a decent inkjet or any sort of laser printer should be sufficient for the job.

Phil South begins a series about how to plan and execute an Amos program project

Back To Basics

part 1

This is a subject I come back to time after time, and is it any wonder, the amount of mail and e-mail I get asking me how to write Amos programs. I'm not running a correspondence course, in case you were wondering, but at times it feels a bit like it. I thought it was time to visit Amos afresh, and show how you would plot out and plan a program from start to finish, and how you would ensure that not only does the program perform well but also is easy and attractive to use.

Before you even start Amos up, and I've said this time and again, you should have a plan. Of course, like most things, you might get your ideas from a piece of code or an experiment you've conducted, or a routine which you've evolved which does something cool. But ideas can't be developed into a fully functioning program by hacking away at the program editor and hoping that you remember to hang everything together. You have to figure out what the program will do first, what order things will happen, and how the program will look on screen.

Interface development is a key issue in the making of any software, and the user should know just by looking at your screen what he has to do and which button he should press to get the effect he's looking for. I see so many Amos programs which have horrible graphics and difficult to fathom controls and, worse still, methods of working the program which are counter intuitive. Graphical interfaces are well over 10 years old now, and most of us are familiar with at least one very good example, the aptly named Intuition interface which is part of AmigaDOS. You could do a lot worse than follow that example or, better yet, use it in your program with the many useful Amos extensions which are available.

So, you have to first figure out what it is that your program does and how it does it, but high on your list should be 'how does the user see the buttons and menus, and is it obvious what must be done at every stage?' If you ask yourself this question at every stage of development then you will end up with a program which looks and feels right.

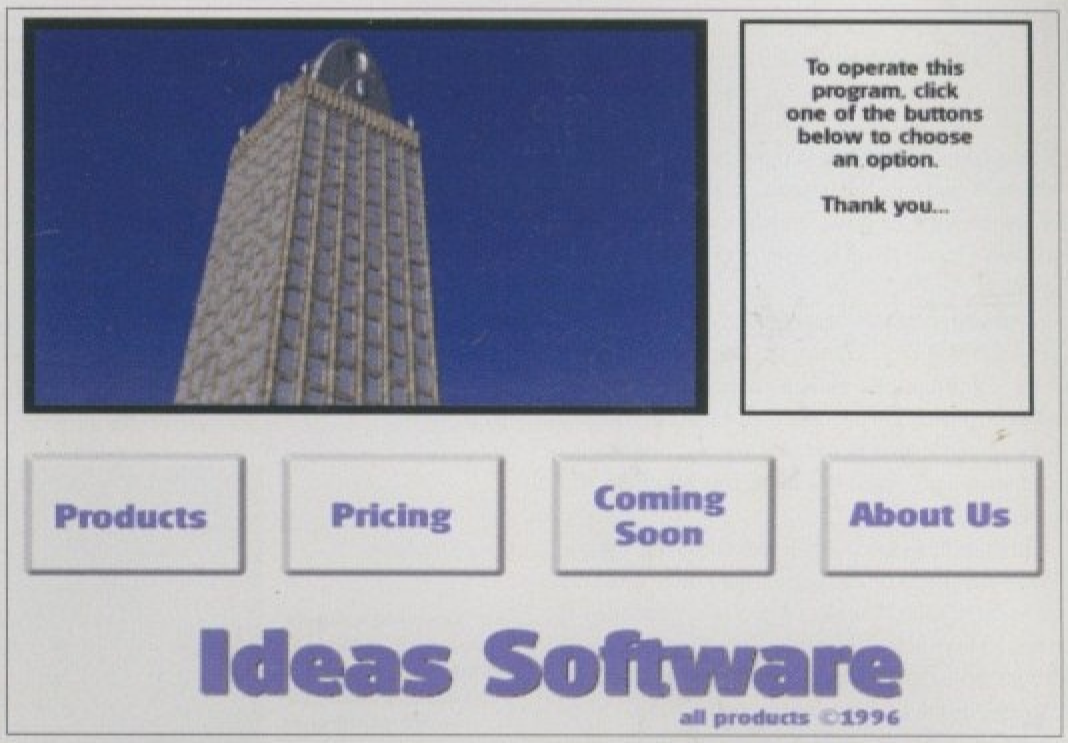
In planning how the program works, you would do best to work in a kind of pseudo-code, a list of instructions which describe in words of English rather than Amos, what the program must do and in what order. For example, if you want to write an arcade game the pseudo-code might look like this:

```
start
initialise variables
set up the screen
load the backgrounds
set initial positions for sprites
start main program loop
        check for joystick moves and button
hits
        calculate alien positions
        move sprites
        check collision detection
                if there is a collision
then activate hit subroutine
                if not continue
go back to start of main program loop

collision subroutine
        explode sprite by replacing with
explosion graphic
        make boom sound
return to main loop
```

You can begin to see the program emerging already, can't you, and if you know anything about Amos the commands to make this program work suggest themselves immediately.

The stages you should go through are these: ideas, pseudo-code, interface, coding, testing, revision, compiling. Don't bother compiling a program until you're sure it's totally bullet proof. Equally, don't do any coding till you know what order the routines should be in or before you've got your interface drawn out on paper and created the graphics in a paint program. These have a bearing on what you will code and how you will do it.



A clear interface is a must these days

Summary

So when you are embarking on a new project, start with a pen and paper rather than hacking about aimlessly with the Amos program. By all means create small routines to cope with each part of the program, but don't attempt to fit them together until you have a clear idea what it's all going to look like and how it's going to work. Keep a notebook of good ideas – this serves a dual purpose of keeping all your ideas in one place where you can refer to them as well as giving you somewhere to jot down anything which occurs to you while you're on the bus or at work far away from your Amiga.

Next month we'll get this process rolling by starting to create a multimedia program which will combine graphics and text and sound to show off a range of products, forming a demo which you could upload to the Internet as an electronic brochure. See you then.

Write stuff

If you have any other Amos programs or queries about Amos, then please write to the usual address, which is: Phil South, Amos Column, Amiga Computing, Media House, Adlington Park, Macclesfield SK10 4NP. Please send routines on an Amiga disk with notes on how the program works on paper, not as text files on the disk. Make the routines short enough to appear in print, i.e. no more than about 30-40 lines of code, and if possible make them use no external graphics, or if they can't be used without them then be sure to provide them on the disk in native IFF format, and the same goes for sound files. Follow these guidelines and it's just possible you might get your programs published.

Steve White explains how you can add bone and muscle and the dynamics of movement

2D paint

Muscle bound

Last month I demonstrated how to draw the human form easily and quickly using only a few simple rules. This month my aim is to explain briefly the techniques that can be employed to add realism to a lifeform, whether it be human or animal. This involves adding anatomical references such as bone, muscle and flesh in order to create a sense of realism and dynamics to a creature.

Drawing a human head or body is fairly simple provided you stick to the rules, but fleshing out a form with bone and muscle requires some knowledge of anatomy. Fortunately, that means you only have to understand bones and muscle, and not the internal organs, and only those that effect the skin on the body.

The first thing to do when learning anatomy is to locate the points on the body where bone and muscle is prominent. However, it is also a good idea to get as many references to a particular point in a variety of different positions as bone and muscle changes as the body is moved.

As an example, take a look at your forearm. Apart from the elbow and wrist their are no real visible muscles or bones. But clench your fist and muscles push up the skin along the side of the forearm. In this example we would use the muscles to demonstrate a punch or thrust. Already you have recognised a particular anatomical feature associated with a particular dynamic or position. Learning about anatomy isn't exactly exciting but it is vitally important if you want to design lifeform images that are realistic and accurate.



When light is thrown across the human face the prominent features such as the cheekbone, nose and mouth light up and cast shadows



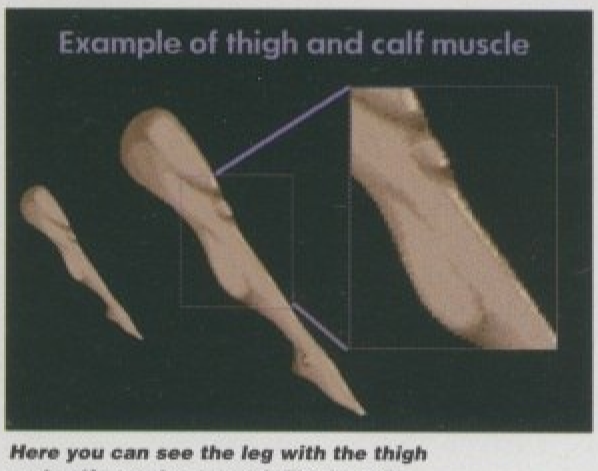
Drawing animals requires extensive study and, if you are animating them, an understanding of the dynamics of movement

Animated forms

If you are planning to create an animation that will include lifeforms (I hate that term), you will not only have to learn about the basics of anatomy but also understand the movement and flexibility of a body. By understanding the way the muscles and bones change as the body moves you can make your animation much more dynamic and add weight, age and sex to your subject matter.

The best way to understand movement of a form is to study it and make notes. Obviously, you're keen to get into the nitty gritty of design, but take time out to understand the subject matter first and you'll reap the rewards. Take a look at the muscle that runs from below your ear to your collar bone. When you turn your head to the side this muscle is pulled and stretched and becomes more prominent. It then returns the head back to its normal forward looking position. These are the types of muscle you should pay close attention to as they are visible and indicate a particular pose.

If you take a look at the leg example in the screenshot you will see that the toes are pointed. Because of this the calf muscle becomes more prominent and because of the rigidity of the knee, so too does the thigh muscle and the muscles around the knee itself. This leg was just part of a logo but it had to look real, and adding muscle and bone to convey an overall dynamic was imperative. If the muscle and bone had been incorrectly added the leg would have lost its identity and the complete image would have failed.



Here you can see the leg with the thigh and calf muscles tensed. The knee is also more visible as a result of tensing

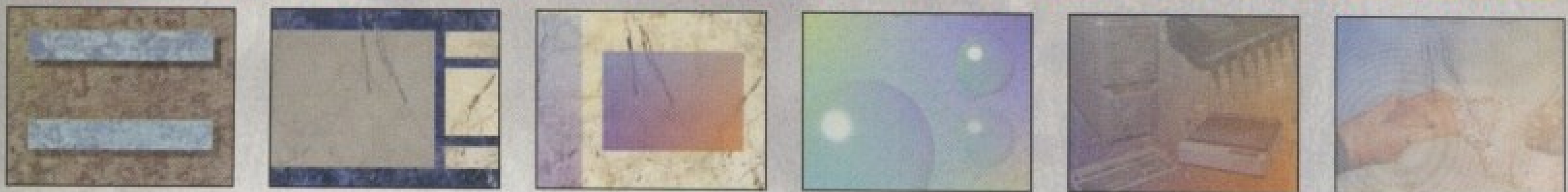
Obviously, another very important feature of bone and muscle which should not be ignored is shadow. Understanding the shape of bone and muscle is essential if shadow is to be rendered accurately. However, cast shadow invariably falls on other bones and muscles, so the process has a cause and effect nature. Take the thigh for example. When the thigh muscle is tensed it causes a shadow to be cast on the inside of the leg. However, due to the oval shape of the leg the cast shadow is also pulled around and curved as a result. This can be clearly seen on the thigh muscle and the inside of the thigh.

Understanding non-human anatomy is even more difficult. Once again it all boils down to study and taking notes. There are some very good books written by artists who have already done the hard work, so you can save yourself a lot of bother and time-consuming work by purchasing such a book.

I have found wildlife videos to be one of the best reference aids when drawing non-human lifeforms. They invariably capture animals in their most characteristic poses and if you can recreate this in your Amiga paint package you're guaranteed success.

It is always the case that the artist who studies produces the better work. Try not to be put off by the complexities of anatomy. Only study what you feel is necessary and remember – your best reference is yourself. Don't feel stupid standing in front of a mirror and making notes – if it helps to improve your design skills it can only be a good thing.

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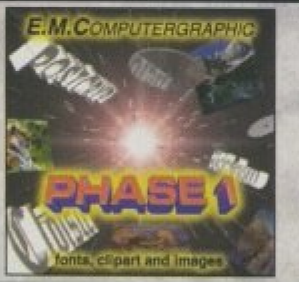
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Paul Overaa takes a look at a lesser known application of the Midi sequencer...

music

Seeing the light

Whenever Amiga Midi sequencers are mentioned most people automatically think of music, keyboard synthesisers, sound modules and so on. There are, however, a number of other control applications that sequencers can be used for and one of these is lighting control. There are a variety of units available that can be used for everything from department store window lighting displays to certain types of stage show, club and disco/dance lighting applications. One benefit when you are already using sequencers for playing music, of course, is that it allows the lighting control to be synchronised to Midi sequencer music – you simply add an additional lighting control track to your existing music sequences!

One light control box that is quite popular is called the Lite Show. It's aimed primarily at semi-pro use and provides eight 300 watt outputs which can be programmably switched and faded using Midi channel 16. The Lite Show responds to three types of Midi message – Note on messages, program change commands and active sensing. It's the note on messages that control the lights, with Midi notes 60-67 selecting the lighting channel and the velocity byte of each message determining the brightness. Program change messages are used to switch between one of s65 pre-set and 15 dynamically changing 'super scene' settings.



Profile Music's MP820 light controller

A slightly more sophisticated unit is the Profile MP820. This provides eight channels with a power rating of over 1000 watts per channel and both the Midi channel, and the range of notes to which the unit responds, are user selectable. The MP820 again uses a note/velocity-based light control scheme but in addition to this, Midi continuous controller #06 has been implemented to allow fade and delay characteristics to be changed under Midi control. For professional users, Profile Music also offer a rack mounted expansion unit which allows banks of MP820s to be linked together, providing up to 2048 lighting channels (and potentially over 2 megawatts of lighting control!).

Profile also offer a light unit from Ryger Electronics called the ML2 which, again, is Midi controlled and provides additional 'intelligence' functions. The same company also market Midi/DMX controllers and there are even some Midi controlled laser products under development.

Midi Line Drivers

For some lighting applications it may be necessary to use long Midi cable runs and for quite a few years now it has been possible to overcome the 15 metre Midi signal cable length limit. In fact a few years ago, the Philip Rees company produced a MLD Midi Line Driver system which not only overcame the 15m limit but let Midi signals be sent down cables of up to a kilometre in length. The original MLD system was unidirectional but in some installations bidirectional Midi communication is required, and the latest units to help in this area also come from Philip Rees.

They're called MTR Midi Line Transmitter /Receiver boxes and consist of a pair of units with the cable link between each unit being made either with screened twisted pair cables or, as is more common in professional applications, by incorporating the devices into paths that end up being sent down multicore cable.

With the MTR system only one unit is mains-powered. This 'master transceiver' has power, Midi In, Midi Out and Line connectors, plus an indicator LED to let you know that the unit is powered-up. The second, remote, slave transceiver derives its power from the line itself, so has only the Midi In, Midi Out and Line connectors. With these units, cable runs of up to 150m can be used and, because the MTR can work down multicore, you'll often find these units installed in theatres to control lighting and trigger stage effects. There are, of course, plenty of other situations where the ability to get Midi data down long cable runs is equally important. In recording studios, particularly with remotely located control rooms, an MTR system can be part of the permanent installation.

As well as the well known Midi gadget manufacturers like J L Cooper, Midi Solutions, Philip Rees and so on, quite a few specialised companies have arrived on the scene who are able to build customised Midi control units for professional users. Such companies can add things like wireless-based and fibre optic-based Midi links to a Midi lighting system although, needless to say, the cost of these types of esoteric options tends to put them out of reach of the average Midi user. The fact remains, though, that where basic lighting control is concerned there are quite a few units that are affordable and, linked to an Amiga running say Dr T's KCS or Microlllusion's Music X, can provide an extremely cost effective pathway into this area!

Bottom Line

Product:	Philip Rees MTR line drivers
Price:	Price: £99 per pair)
Phone:	01608 811215

Product:	BCK Lite Show lighting controller
Price:	Price: £199.99
Phone:	01992 524442

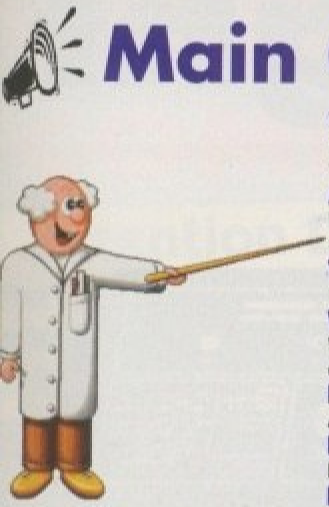
Product:	Profile MP820 lighting controller
Price:	Price: £199.99
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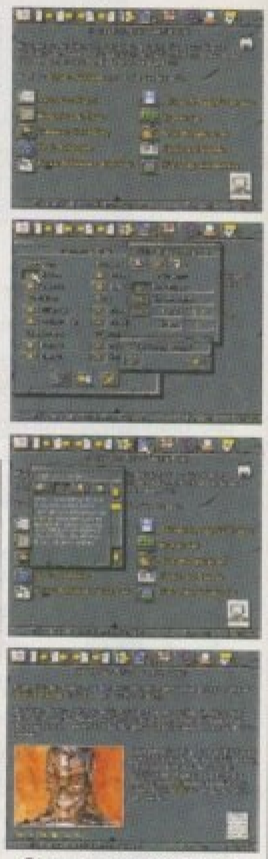


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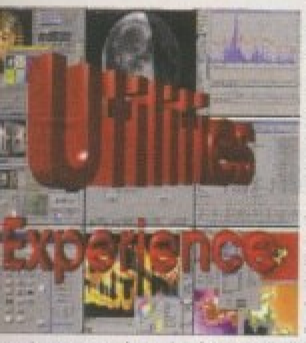
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Steve Bye	- AMOS Programming	- F1 Licenceware
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David Taylor	- Storage, Emulation	- Freelance Writer
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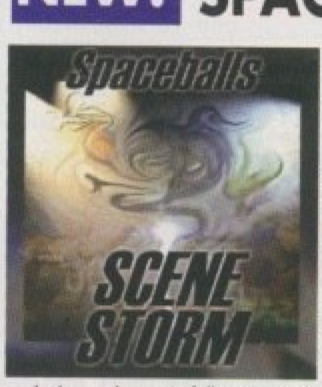


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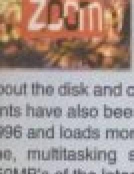


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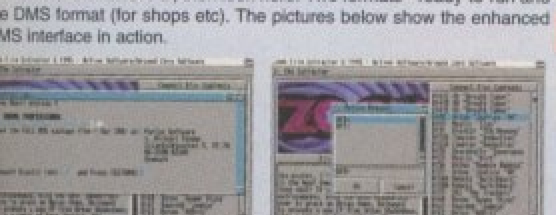
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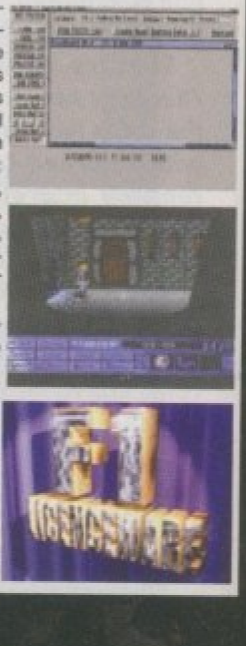
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COMMERCIAL SOFTWARE - NOT PD!

Got a digitiser that's collecting dust? Gary Whiteley has a few suggestions

video

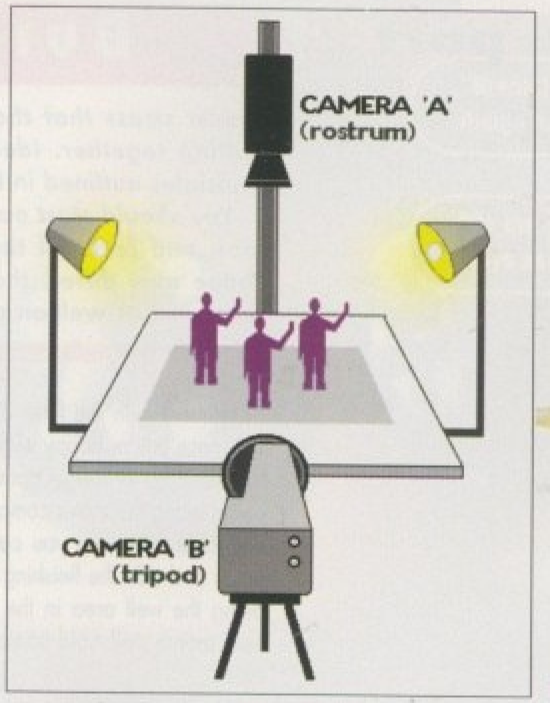
Moving pictures

If you're one of those people who bought themselves a video digitiser but gave up because you got bored with grabbing chunks of your favourite video or TV programme, go and dig it out. Find the connecting leads and get it plugged into your Amiga because I'm going to run a few animation ideas past you which might just grab your imagination.

You'll also need access to a video camera (a camcorder will do fine) and a tripod or copy stand/rostrum with a suitable camera mount, a couple of Anglepoise or similar lights, and a quiet dark corner where you can remain undisturbed for days on end, with a table or other solid surface to support your work. So much for the actual recording hardware and shooting location.

Decisions

Now comes the difficult decision of what to animate. Well, you're hardly stuck for choice! Almost anything that you can fit in front of a camera can be animated, but try to avoid children and animals as they tend to be unable to keep still for any length of time, no matter how much you plead with them. Instead, think about all the possibilities offered by drawing or painting a series of different images on paper (or even animation cel if you can (a) afford it and (b) you have a suitable rostrum with peg-bar to keep the cels 'registered' - i.e. fixed in the same place from frame to frame). But why limit yourself to two-dimensional work on paper or cel? Look around you and see what other possibilities present themselves. A good place to start is in the kitchen where food items such as grains, nuts, beans and pasta shapes can be used to construct pictures. Then consider toys, models, things made from wire and plasticine, cut-outs from magazines, and other objects which you can build yourself. Some of these things will make for 2D animation, but you can also do 3D work with many of them. Just let your imagination run wild for a change – but avoid using objects which will quickly lose their shape, such as fresh plants and fruits, or melt or otherwise be affected by the hot lights shining on them.



Use either a rostrum-mounted camera, or one on a tripod. The choice is yours



Under the hot camera lights your grapes could soon turn into currants

Contact Point

Gary Whiteley can be e-mailed as drgaz@cix.compulink.co.uk

Deceptively simple

Animation is simply a sequence of still images which are played back fast enough to fool the eye and brain into thinking that the movement they contain is smooth and flowing, just like television and cinema. In the UK the playback rate is generally 25 frames per second for video and 24 for film, which equates to 1500 frames per minute for video and 1440 frames for film. Either way, they're both frighteningly large numbers of frames to contemplate, especially if you're thinking of making a ten minute animation!

But hang on! Most animators shoot every frame twice, making only 12.5 frames to the second, so your workload is immediately halved. Sometimes you can get away with even less frames per second – even several seconds of the same frame if the story calls for it – so don't be scared off at the prospect of hard work just yet.

To make animation with your digitiser you'll need a reasonable amount of computer memory and, preferably, a hard disk. If you have neither of these, you should still be able to test the water, but you'll be much more limited in both the resolution of the animation which you can produce and the speed and number of frames which your Amiga can play back.

Start with a little planning – decide what you want to achieve and work towards it. Set up your little animation studio, switch everything on, and white-balance the camera (read the instructions if you don't know how or why). Set up the first frame (image) of your animation and make a test grab with your digitiser. Check the lighting, colour, and how the image is framed within the screen.

When you're happy that all is how you wish – taking into account that the picture quality won't be so great unless you have a 24-bit digitiser, plenty of memory and a hard disk – it's time to start animating, so open a new file (or whatever your particular digitiser requires) and take a new grab of the first image. You only need to take one frame (not two) as your Amiga can be made to play the sequence back at half-speed (if you have animation-capable paint software such as DPaint or Brilliance or a program like View or other speed-controllable animation player software).

The next step is to make a small adjustment to your animation set, for instance by moving your model/s, replacing the original drawing with the next in the sequence, or by adding or subtracting something from the scene. Whatever you do, keep the movements quite small or the resulting motion will appear jerky when you play the animation back. Grab your second frame, make more adjustments, take the third grab, and so on.

Eventually (over hours or even days), you will have built up a series of images which together comprise your animation. Play them back as a sequence using your digitiser software or save them as an .anim file, which you could then load into DPaint, for instance, and add extra details, text etc. to. Watch out Wallace and Grommit!

Paul Austin continues his tutorial on the do's and don'ts of basic space craft construction

3D graphics

Paper to polygons

part 2

After a fair amount of head scratching, sketching and second thoughts regarding design and construction, I decided to opt for the simplest possible starting point, and see how much could be squeezed out of it.

As you've probably gathered, the starting point was a basic faceted cube, the idea being to demonstrate how quick and efficient building a respectable bit of cannon fodder can be. Needless to say, the ship is meant to be a bad guy, and as a result it plagiarises most of the classic traits you'd associate with a bad guy. Down swept wing fronts, aggressive raked wing design and, most important of all, a general look and feel of something unpleasant from the real-world.

The beastie in question is a bat, but of course you've already spotted that hadn't you? Anyway, here's a step by step guide of transforming a box into a bad guy.

Although there seems very little correlation between the first and the last model, there's been little added or taken away. The only major changes consist of moving and merging a few points to create softer corners here and there, the odd move, scale and taper on selected point and polygons, plus one or two additional slices to provide a few additional control points. Figure one and two are simply progressions, with a few point merges as mentioned above. Figure three is obviously where most of the action takes place.

However, after establishing a basic form I was happy with, and before progressing from two to three, I decided to save myself a lot of extra work by deleting half the model. Now I know that may sound like a very silly thing to do, but once you've decided on a direction for any symmetrical model, there's very little point in plodding on and being forced to measure or eyeball everything when the mirror command will do all the time-consuming stuff for you.

By deleting half the model along the Z axis you're instantly giving yourself a lot more freedom to experiment with the finer design points. Needless to say, once you're happy with the shape a simple mirror followed by a merge command on the duplicated points along the z axis completes the basic construction stage. At this point you can simply select the detail areas and add the finishing touches, a prime example being the well area in the centre of the ship, which next month will hold some of the all-important fine detail.

As you've probably guessed, one of the prerequisites in the design spec is a low polygon count. However, if you're planning to see the ship close-up it's important there's some detail to enhance the general look and break up the monotony of an essentially symmetrical form. Just about every decent space ship ever modelled has little clusters of detail and assorted 'sticky out bits' here and there, and this one is no exception.

During next month's column I'll be running through the creation of what Ron Thornton calls 'nurnies', which for the rest of us translates into innocuous detail that does nothing – but looks like it should. In the case of my creation, this will translate into piping and mechanics in the recess on the top of the ship, plus assorted engine parts, the all-important guns, and possibly even the odd fuel pod here and there.

However, before moving on to the finer points it's essential to take some time out to define the basic surfaces before the overall structure becomes too complex to make selection and naming of surfaces simple. Too be honest this particular rule of thumb doesn't apply quite as much to this particular model because the structure is relatively simple, but it's well worth getting used to applying surface names sooner rather than later on all your modelling jobs.

Build on the basics

I must stress that the point of the exercise isn't to simply replicate the model I'm putting together. Ideally, you should be applying your own ideas using the basic principles outlined in this and the previous issue.

You should start out with a faceted cube to keep things simple, but go for your own look and feel. All the basic principles should remain the same, and although the shape may differ, the basics of adding detail and texturing the finished model will work just as well on any model your imagination can come up with.

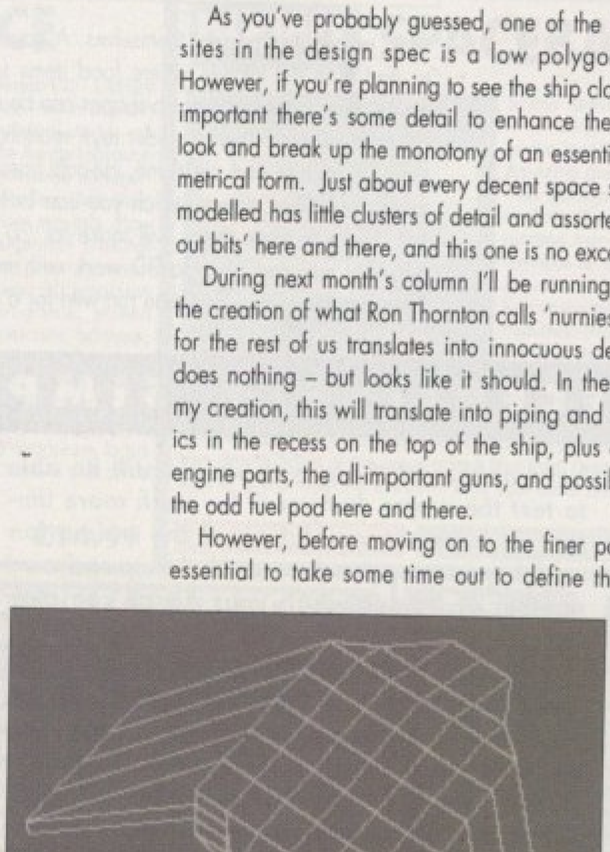
Up and coming

In the next issue I'll be adding the finishing structural touches but, more importantly, turning my attention to the tricky problem of texturing. Particular points of interest will be the creation and layering of various textures in the colour, specular and diffuse fields to create a photo-realistic array of surfaces.

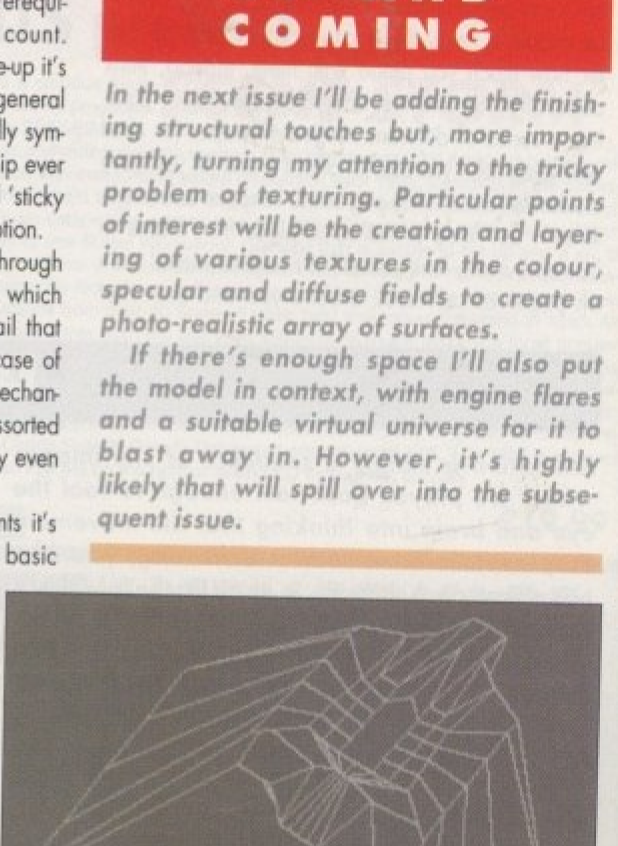
If there's enough space I'll also put the model in context, with engine flares and a suitable virtual universe for it to blast away in. However, it's highly likely that will spill over into the subsequent issue.



Start with the basic cube and see what your imagination can do – but don't forget to keep your original sketches close by. It's easy to model yourself into a corner



Use a few stretch, taper and move commands combined with the odd slice and you're on your way into deep space. From here make the most of the mirror command



From here on it's just a question of adding fine detail and the all-important texture maps. Don't forget to tune in next month for the fine points


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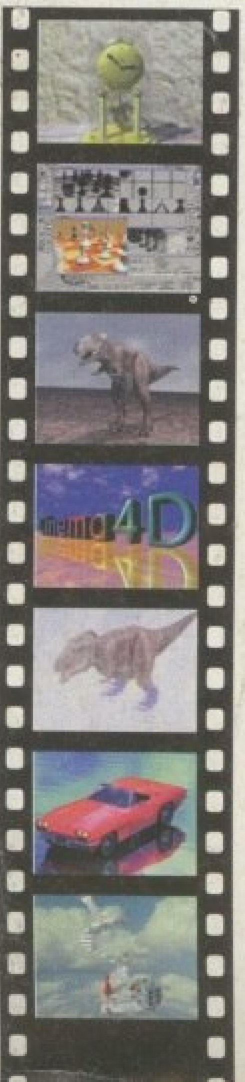


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